Working Paper Number 125

Insurance for the Poor?

Stefan Dercon, Tessa Bold and Cesar Calvo[1]*

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 LAC 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, and possible products include 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 maximise the ability to reach the poor and the overall welfare benefits.

* University of Oxford

Revised July 2004

[1] This paper is based on work initially financed by the Inter-American Development Bank and by WIDER, the World Institute of Development Economics Research. I would like to thank Luis Tejerina for insightful comments.

Introduction

Households in developing countries are exposed to high risk, with important welfare consequences. These risks range from individual-specific ones, such as illness, theft or unemployment, to economy-wide risks, such as drought or recession. 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 will discuss 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 – contrary to other risks, such as a country-wide recession or crime. Discussing insurance for the poor will also have 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 will argue 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 the poor face 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 urbanisation 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 – they actively try to manage risk and cope with its consequences. A study of the strategies to manage and to cope with risk is illuminating both to understand the implications of risk for welfare as well as for the design of policy responses, including insurance. Much work has been done in recent years to study these strategies and to understand 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 that risk is less important. 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 –

effectively increasing or perpetuating poverty in the long run. Other strategies involve risk-coping mechanisms - trying to overcome missing or imperfect credit and insurance markets by entering into 'self-insurance' via savings for consumption smoothing, 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, at the same time undermining 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 incomes, and that shocks undermine significantly the ability to grow out of poverty has important implications for the welfare costs involved in risk. The overall result is not just a welfare loss in terms of fluctuations in welfare levels, but a loss of *efficiency* in that the poor are induced to use their assets less efficiently than the rich. Theoretical models such as Banerjee and Newman (1993) build on this feature to show that risk may well result in poverty traps – permanent poverty for some from which no escape by their own means is possible even if there is overall growth in the rest of the economy. The implication is also that there is no trade-off between equity and efficiency when measures are taken to avoid some to get trapped. In other words, there is a case to provide insurance at subsidised rates to avoid some to slip into poverty. Section 2 will further expand on this point.

While there is scope for public policy and intervention in the realm of providing solace from risk – even in the form of subsidies – this does not necessarily settle the issue about the appropriate form of these 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 will be made, but with an acknowledgement that insurance products can be costly and, more importantly, they cannot solve all problems involved for the poor. Alternative (complementary) measures will be discussed as well, not least in response to realisation that some economy-wide 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 will discuss some general issues of the design of insurance for the poor. A key issue to be considered is that one must ensure that the poor are effectively reached. This suggests the need to involve local and grass-root organisations that have established links with the poor. Equally important is that the system can provide a cost-effective service and be sustainable. Insurance provision is a specialist 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 will then discuss possible products, addressing those risks most suitable for insurance-based protection, focusing on life, health, property and weather insurance. Examples from Latin American experiences – from Guatemala, Mexico and Columbia - are used to illustrate key problems and solutions related to the design and delivery of these products. Section 6 will discuss the respective role of different institutions, focusing on the required regulatory framework, the respective roles of partners and agents.

Section 7 will discuss the potential role of local social institutions already providing informal insurance.

1. Risk and the Poor

In this section, I will look at the risk faced by the poor, first in general and then specifically by the Latin American 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 take the latter point first, 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 are 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 our discussion.

A related point is that when looking at the extent to which the poor are affected by risk, it is important to realise that 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 of support of 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 currently cope with risk and secondly, we need to discuss problems of crowding-out and their possible welfare implications in more detail. In section 3 and 4 these points will be taken up further.

Turning to the typology of risks, a number of studies have in recent years highlighted the risks the poor face. 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 areas and the Latin American and Caribbean countries (LAC) is the degree of urbanisation, more specifically, the substantial urban nature of poverty. Whereas African and Asian poverty is mainly a rural phenomenon, the urban share of population in LAC 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% and 70% of the poor belong to the urban sector.

[2] While the *incidence* of poverty in rural areas reaches 64%, it falls to 48% 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**		**LAC**	
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		
Sample average	*31.4*	*Sample average*	*23.4*	*Sample average*	*58.4*

Own computation. 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 Economic Commission for Latin America and the Caribbean (2002).

Urban poverty is different from rural poverty. For instance, the urban poor face specific risks that the rural poor are unaware of, 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 provision to the Latin American poor will necessarily diverge in some way from most previous studies, which are based on African or Asian experiences and have virtually exclusively focused on rural risks. The focus here will not just be on urban risks only, but an attempt is made in this discussion to give at least equal weight to both types of settings.

Not many studies have systematically tried to record the sources of risk faced by the poor. Tesliuc and Lindert (2002), as part of a larger World Bank study on poverty in Guatemala, provide a unique insight into the sources of risk and their consequences in this country, based on a specifically designed household survey combined with focus group interviews, conducted in 2000. Note that Guatemala is one of the most rural economies in Latin America, and relatively the lowest percentage of the poor reside in the urban areas (table 1), so their findings need to be supplemented by other sources to get a more complete picture. Furthermore, 2000 was a year without serious economic crisis or natural disaster. Nevertheless, they found that about 53

[3] We remark that the urban poor face *different* risks, not *more* (or less) risks. For example, in an LSMS in Peru in 2001, 30.1% of urban households reported to have suffered a shock. In the rural sample, this percentage was 29.6% (Chacaltana, 2002).

percent of the households interviewed reported one or more shocks – with 23 percent mentioning a 'natural' shock (from pests to forest fires or floods), 17 percent reporting an economic or other man-made shock and 13 percent reporting both. In terms of frequency, the commonly reported shocks were agricultural related – pests, harvest losses – but many different types of shocks were reported (Table 2). Some of these shocks were largely 'rural' – pests, lost harvest and drought are the obvious ones – and others are much more common in urban areas – including crime and job losses (each more than double the incidence in urban areas). Accidents and floods have similar incidence in rural and urban settings. There are no apparent differences in the overall reported incidence of shocks across rural and urban areas. Other studies in the same period confirm the high incidence of shocks reported: Gaviria and Pages (2001) report that in the first semester of 2000 36 percent of urban Guatemalans reported a shock causing loss of income. Work in Peru (Chacaltana, 2002) reported about 30 percent of households reporting a significant shock to income or wealth in 2001. In short, all evidence available suggests that shocks are prevalent to both rural and urban households in LAC countries.

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 breadwinner, job losses, drought
2-5 percent	Loss of terms of trade, crime, floods
0-2 percent	Hurricane, bankruptcy, land slide, death breadwinner, enterprise closure, land dispute, fire, earthquake

Source: Tesliuc and Lindert (2002).

The work by Tesliuc and Lindert (2002) has a number of further striking findings. First, in this particular year, 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, when asked about the last five years, some shocks have a much higher incidence, including hurricanes (recall 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. A second point was that there was apparently 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 bread winner. They also find that the poorest are more affected by shocks: in terms of asset or welfare loss, the poor are typically harder hit. This is especially the case for shocks related to agricultural risks.

In Tesliuc and Lindert (2002), health shocks were not covered and analysed in their survey. This 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 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 it is found that 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 LAC countries will need to consider those risks with high incidence and with serious consequences. *'Natural' risks* are clearly top of the list, but not only for rural settings. Some are obviously rural, such as related to harvest losses due to drought or pests, but floods or hurricane risks, and other large scale natural disasters, are also relevant for 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 LAC 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* have to be given centre 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, in the SEWA data from India, illnesses are the most common shocks in the SEWA data from India (Chen and Snodgrass, 2002). In Peru, the LSMS of 2000 shows that health expenditure adds up to 8.9% of total monthly expenditure of the poor when a household member is ill.

Illness is a more pervasive risk where public health services are missing. Careful qualitative work for the World Development Report 2000/01 across a number of LAC 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% of the urban poor feeling ill has access to a doctor, while this percentage falls to 39.6% among the rural poor.

In the case of disability, illness creates additional health care costs, but also a further permanent effect via the loss of income earning capacity. Even a temporary disability may result in job loss, and thus the low-income period may last until the household member finds a new job. This effect 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 also significant economic costs. Some of them are one-off outflows (burial costs) and, more importantly, some of them are permanent (the 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. Moser (1998), in a study of

urban vulnerability and risk 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 the 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 thinking about interventions related to health risks, one cannot escape addressing these issues as well when considering insurance and other forms of protection, compared to alternative interventions.

Furthermore, a number of largely *economic risks*, such as related to job losses and other sources of income drops – often largely in a setting of insecure wage employment and small (petty) businesses from the point of view of the poor, would need attention as well. Qualitative surveys on perceived risks stress the central importance of the wage labour market, not least in urban areas (e.g., Zaffarino, 1999; World Bank 1999). A related risk is due to relative price changes and general inflation. Urban households are typically much more exposed to these risks, largely linked to a much larger degree of market-reliance, 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% of the urban households considered the economic crisis as a shock in 2001, while only 2.8% of rural households did (Chacaltana, 2002).

Finally, a discussion of risks faced by the poor will have 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, largely 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 victimisation rates in a number of LAC countries. Although there are always problems with this type of statistics, they show higher rates in larger cities.

Table 4 Victimisation rates in cities of some LAC countries (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 poor's perceptions of these risks are often closely linked to the absence of property rights and the rule of law, largely linked to 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 houses, or to plain abuses from corrupt officers. In Argentina, the urban poor complain *'not only they [policemen] do not protect us, but they also chase us and treat us badly*' (World Bank, 1999). Theft is reportedly similarly a constant threat to the assets of the poor, whose neighbourhoods have usually no police protection.

In the rest of this paper, I will return to some of the key risks faced by the poor: 'natural' risks, illness and related risks, economic risks and 'social' risks, such as crime. I will discuss the scope for insurance provision, as well as alternative protection mechanisms. In the next section, I will first focus on why existing insurance systems do not provide adequate protection to the poor, and also on the standard responses the poor use to cope with these risks. This will then provide the basis for discussing the key issues determining whether initiatives to extend insurance provision could be successful for some or all of these risks in the subsequent section.

2. Market Failures and Household Responses to Risk

If these risks are as substantial and if the consequences are as serious as suggested above, it begs the question 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 of the failure of crop insurance systems (e.g.,

Braverman and Guasch, 1986; Binswanger, 1986). Similarly, health risks are often hard to insure comprehensively, as are substantially covariate risks, such as natural disasters or economic recession are hard to insure by insurance markets. However, it remains to be explained why these asymmetries should be more perverse when policyholders are poor. In fact, they also plague contracts in more developed markets.

Insurance providers mitigate informational problems 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 their ideal (second-best) separating-equilibrium values. Thus, 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 usually stand partly aside from the formal economy, formal insurers also face enforcement problems and/or the poor face extra costs. For example, claiming for home insurance when there are no formal titles to land or houses, imposes extra verification costs on claims, discouraging firms to offer contracts to the poor or making them less attractive. Similarly, the assets of the poor may be relatively low value, so the transactions costs related to valuation would be relatively high relative to the size of the contract. Costs related to birth and death certificates may make insurance contracts again 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. Overall, the transactions costs for insuring poor people with limited

Furthermore, it has been suggested that the poor sometimes have difficulty to properly understand their rights related to insurance contracts. McCord et al. (2001) report several cases where the poor did not file their claims after being shocked by an insured event. 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 facts that a sizeable part of the population is dependent on agriculture, and that macroeconomic instability is substantially higher in developing countries than in richer countries (resulting in serious covariate shocks in the economy) are 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, in most LAC countries, the coverage of these

[4] In fact, Armendariz and Morduch (2000) argue that the 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 as well for insurance provision.

programs for the poor is minimal. 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, p.131). The Instituto Guatemalteco de Seguridad Social (IGSS) covers workers in the formal private and public sectors (only), running a number of programs. Programs analysed, such as the accident-maternity-sickness (IVS) program, were shown not only to be in deficit but also regressive in terms of benefits incidence.

The lack of formal insurance markets or social insurance systems does not mean that the poor just undergo the risks they face. Much of the livelihood of the poor is centred around ways to reduce, mitigate and cope with the risks they face. The poor use risk management and risk coping strategies to alleviate the risks they face. Table 5 describes these strategies including their shortcomings. By risk management, we mean that they try to smooth income, by reducing the exposure to risk or mitigate the risk of some income sources by combining them with others. Crop or more general income diversification is one typical example. Other common strategies involve relative specialisation in low risk activities, even at the cost of lower returns, or migration based strategies. Risk coping strategies effectively try to smooth consumption given risk in income. 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', effectively informal insurance arrangements based on reciprocal gifts or contingent credit.

Risk management and coping strategies are part of the general livelihood of the household – and used in most periods. However, if a serious crisis occurs, households resort to more extreme actions, survival strategies, i.e. 'emergency' actions to be taken when the income fall is unavoidable. Table 6 summarises these. Details on these strategies can be found in Dercon (2002); a related approach, 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 faced via changes in portfolio of income sources	Crop diversification Specialisation in low risk activities Migration of some members	Sacrifice of expected income
Asset management	Savings as self-insurance	Lack of suitable saving assets (lumpiness, 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 portfolio of income sources	Children's labour	Sacrifice of human capital
Asset management	Selling/Pawning of real/productive assets	Long time to rebuild them up
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 sets from Asia and more recently from Africa, but many of these responses can be found back from data sources in LAC countries. A few striking conclusions emerge, in common with the overall empirical literature on this issue. First, the key way in which households cope with risk is by using income-based strategies – such as diversification of income sources – and by using assets for buffering consumption. A related result is that informal insurance and credit is used, but overall, only in a relatively limited number of cases.

For example, Chacaltana (2002), and reported in table 7, suggests that most Peruvian households (72 percent) dealt with the reported shock *on their own*, either through changes in their portfolio of income sources (sending an additional household member to the labour market), or through asset management (consuming their savings, selling off or pawning 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 used to cope 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 Peruvian rural poor – 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, 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] The key mechanism is that lack of insurance – whether formal or informal – causes households to go for a safe portfolio of activities and assets, which typically implies a lower mean return. A poverty trap may arise, whereby the poor have no access to insurance, and lack of insurance precludes the poor from taking risks and raising their income, so as to perpetuate their poverty. The process is exacerbated since, after depletion, asset holdings are difficult to rebuild. 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, a further usual sacrifice is housing privacy, as families rent out some rooms, or children come back to the parental house in order to rent out their own house (Zaffaroni, 1999). In fact, Tesliuc and Lindert (2002) conclude from their Guatemala data 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 have efficiency losses, and since the poor have to resort more to them than the rich, the result is that the efficiency losses are especially borne by the poor (Rosenzweig and Binswanger, 1993). It also means that the

[5] Note that these are reported responses when a shock materialized. Those households that successfully avoided shocks by skewing their activities towards safe activities 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 these data would suggest.

[6] It is worth noting that most studies focus on rural poverty traps. Hence, the effect of risk exposure on urban investment decisions remains to be explored. In the case of Latin America, this research is especially relevant.

welfare losses related to lack of insurance are well beyond those in terms of fluctuations and other transient effects in consumption and other welfare indicators. They involve permanent or chronic poverty effects, implying substantially higher welfare costs, including in the form of lower efficiency. These efficiency losses also mean that there is scope for interventions of a specific type: where there is no efficiency-equity trade-off, but where increasing equity (by focusing spending on the poor) is in fact efficiency-enhancing (for a more detailed discussion, see Dercon (2004); for a theoretical discussion on poverty traps induced by risk, see Banerjee (2004)). It implies that schemes to promote insurance for the poor may well have a subsidy element that could be efficiency enhancing. 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. It establishes more clearly the case for interventions to encourage insurance with public (and aid) money beyond a clear case for promoting equity (see Dercon (2004)).

3. The Scope for Insurance Provision to the Poor

The previous section made the case for facilitating and enabling efforts to ensure that the consequences of risk are reduced for the poor. It also identified a number of key risks – natural risks, health and related risks, economic risks and social risks – that are especially harmful for the poor. 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 which form these efforts should take. More specifically, is it 'insurance' that provides the answer, or should other mechanisms be considered? The underlying cause of hardship linked to risk is a missing insurance market, so efforts could focus on establishing or fostering these markets. Still, this is not the typical policy answer observed. The more traditional view about dealing with 'risks' has been to provide safety nets, systems of targeted interventions focused on particular groups affected by hardship, including through 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 at the root of the lack of private insurance markets, there is little reason *in general* that the public sector can simply resolve these informational problems. Similarly, even if informational problems can be partly resolved, transaction costs linked to providing insurance to the poor are, as discussed before, likely to be high, so that administrative insurance provision may become excessively expensive, with efficiency losses well above the plausible gains in efficiency linked to better protection against risk. Also, large covariate and catastrophic risks are unlikely to be easily insured via insurance, unless the further 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 causes of 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 other 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, by low assets or any other form of exclusion from markets.

A singular focus on 'safety nets' has serious problems as well. First, it does not need to be the most cost-effective means of addressing the problem of risk. They typically would only offer support once any uninsured risk has already caused serious hardship. Secondly, they are typically characterised by serious problems related to their functioning and inclusiveness, including 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 then in fact in themselves at best a source of uncertainty, and at worst, the poor are excluded or support comes too late. If one of the desired consequences of better insurance against risk is to allow the poor to engage in risky but efficiency enhancing and high return activities, then this would not be properly achieved by the nature of safety nets currently in place.

The problems related to both safety nets and broader insurance provision suggest that a complementary balanced approach incorporating both elements would be desirable. Much more work would be needed to understand the optimal relative balance of insurance-related activities and safety nets. In fact, a number of alternative policies should be considered as well in the design of a comprehensive system of protection against risk-induced poverty, with complementary action. Broadly speaking, the system should consider both a number of ex-ante instruments – allowing the poor to be better protected against possible shocks, and ex-post measures – a comprehensive safety net providing protection against hardship caused by shocks. *Ex-ante* measures would provide incentives and means to the poor to protect themselves better against hardship: better insurance products for the poor are the obvious instruments, but they should also include efforts to support self-insurance via savings, and assisting income risk management and asset building by providing access to credit. Ex-ante measures could also include effort to reduce risk itself, and thereby assisting the an insurance-related approach to become more feasible. *Ex-post* measures would provide a genuine safety net, appropriately targeted to the poor but large enough in scale and coverage to provide broad-based social protection at some minimally accepted and feasible level of standard of living. It could be part of a more general welfare support system, or specifically targeted for risk-related hardship.

Before focusing in more detail on insurance provision for the poor, it is useful to stress the role these other complementary ex-ante measures could take on. A first set of measures involve reducing the risks faced by the poor directly. These measures clearly highlight the need for multisectoral approaches to deal with risk and insurance. For example, better basic health prevention and sanitation policies have a substantial impact on health risks. Better information systems on prices and weather conditions, targeted to the poor, could have substantial benefits, as would be technology investments making households less liable to losses of certain sources of risk – irrigation or drought resistant crops are well-known 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.

Other financial products, beyond insurance, also have a clear role to play to cope with risk. Savings instruments have been largely undervalued as an effective instrument for protection against hardship (Dercon (2002), Morduch (2004)). Relative to the widespread attention to credit market provision to the poor, it has been given relatively little attention, but as an area of subsidized intervention and regulation, it has many advantages. For example, it is not affected by the informational or reinsurance problems affecting credit and insurance, and transactions costs related to these operations, while not negligible, are likely to be largely restricted to the administrative handling of the savings. Key problems include that insurance via financial assets may be risky, not least given the endemic risks related to inflation in Latin America. Financial savings are typically not tailored to the poor, offering low or negative returns, and involving prohibitive transactions costs imposed on the saver. Savings should not just be looked at as reputation building devices or sources of capital mobilisation outside the household economy. The typical products are tailored to long-term deposits, with highly punitive returns for those looking for flexible instruments to handle unexpected hardship. As an area of targeted support, savings for precautionary motives should be encouraged as well, based on flexible savings instruments.

Credit products could also help to provide better protection against risk. Credit can act as an insurance-substitute, and products targeted to these purposes should be part of the standard portfolio of financial products aimed at the poor. Furthermore, it provides a means to diversify income sources and building up assets, increasing incomes or reducing overall risk in incomes, as well as the ability to cope with shocks to income. To be successful in this area, financial products on offer to the poor must be flexible and take into account that they face substantial risks. Interlinked credit and insurance contracts are one option – for example linking credit and health insurance. This form of insurance is not the focus of this paper, but there is definitely a need for more trials and research on such products.

As part of a general system of protection against risk-induced poverty, there is clear scope for insurance targeted at the poor. In the next section, first the risks that can be protected through insurance provision aimed at the poor are identified in more detail, followed by a discussion of the type of insurance products that could be offered. A number of case studies of institutions that have successfully done so are presented as well, focusing on their strategies to deal with the particular challenges of selling insurance to the poor. Based on this analysis, I argue that unsubsidized insurance for the poor is unlikely to be feasible for anything but simple term life insurance, and an important role for state or donor involvement therefore remains, where the state is especially called upon to create a regulatory environment that encourages the proliferation of insurance and financial intermediation. Furthermore, the available evidence suggests that the best mode of operation 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 already existing informal institutions as potential agents and the paper concludes by discussing the important role of such institutions in crowding in the support of established partners.

Insurance involves the pooling of risk over a large number of similar units and is most appropriate for uncertain and expensive losses, which are greater than what a

household can save or repay. As the size of the loss and the degree of uncertainty decline, insurance loses out to credit and saving. Insurance therefore involves exchanging the uncertain prospect of large losses for the certainty of small regular payments and in doing so, policy holders pay for the losses incurred by others and the costs and risk assumed by the insurer. For less uncertain or smaller losses, savings or credit may be more appropriate, so that it would mean that providing savings and credit instruments will be beneficial.[7]

Brown and Churchill (2000) suggest that there is scope for insurance provision only when the following criteria are fulfilled: (1) a large number of similar units exposed to risk; (2) limited policyholder control over the insured event; (3) the existence of insurable interest; (4) losses are determinable and measurable; (5) losses should not be catastrophic: reinsurance becomes increasingly difficult with increasing covariance across people (such as a hurricane or a flood); (6) the chance of loss is calculable: to estimate the probability of loss, historical information on a sufficiently large number of people or property exposed to the same risk is required; and (7) premia are economically affordable. They propose a rule of thumb that states that if the probability of a loss exceeds 40 %, premiums will definitely be too high to be affordable.

There are numerous examples of insurance schemes that have been introduced without fulfilling 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 above criteria apply to poorer as well as to richer insurance clients. However, some of them make it particularly difficult to insure the poor profitably. The need for premia 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 % of losses due to illness shocks. Insurance to the poor is traditionally fraught with high per unit transaction costs, because premia have to be small and need to be collected frequently, while the values of the 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 problems make insurance unprofitable. Nonetheless, a number of small scale (microfinance) institutions including in Latin America already cater successfully to the poor, and their experience may help to develop some best practice guidelines for potential entrants into the small scale insurance market that want to target the poor[8]. Some of these lessons will be discussed below in section 4 and 5.

But a key lesson has to be that ex-ante measures, in the form of a comprehensive system of savings, credit and insurance products, may provide substantial protection to the poor, but ultimately they cannot fully insure individuals and families. In short, some ex-post measures, providing transfers to those affected by uninsured risk,

[7] 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.

[8] The survey by Brown and Churchill (2000) provides a number of examples.

would still be necessary as part of a comprehensive system of protection of the poor against risk. Insurance products for the poor will have to be simple, insuring only specific, highly observable risks, with measurable losses, while high risk groups may have to be excluded by design for the sustainability of the scheme. Self-insurance fails if shocks happen to materialise in successive periods. All self-protection strategies require some outlay beforehand, and self-insurance fails if shocks happen to occur in a number of 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 catastrophies, may not be easily covered via a pure insurance system. Other risks ask for other types of measures to handle – 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 insurance 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, for a number of risks 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 will be discussed in more detail.

4. Implementing Insurance for the Poor

To implement insurance provision for the poor, some key issues pertaining to insurance management need to be addressed. This section will first address the institutional arrangements and issues such as financial management, premium calculation, distribution of services and reinsurance, with a particular focus on targeting the poor. In the next section, a number of possible products will be discussed.

For insurance provision towards the poor, it is paramount that the agents involved 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 – an example would be microfinance institutions (MFIs), which have become relatively widespread within developing countries. But, since purchasing insurance involves a payout only in the case of an adverse shock, it is paramount that insurance customers can be absolutely certain of the benefits they receive. 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 both 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 with close contacts 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. Its advantages are 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 at a similar cost to policy holders. The biggest limitation of the partner-agent model is the limited availability of potential partners. Fostering these relationships may well be a crucial area for public policy, by providing a clear institutional and regulatory environment. In section 6, this will be discussed further. 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. This may, however, also be achieved by making existing informal arrangements part of the set-up of an MFI.

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 find in their survey that MFIs who cooperate with established insurers are usually able to offer coverage at better prices. IFOCC in Peru attempted to find partners to help them with the actuarial expertise they lacked, but 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 inducing numerous complaints from their clients. Premiums were then lowered successively until customers stopped complaining. While this ensures that clients are able to afford their premia and are satisfied with the rates at which insurance is 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 are frequently collected to impose the necessary payment discipline. An agency, which employs home service distribution and collects premiums on weekly basis would be well suited to the needs of low income households, however, it may incur high transaction costs. Integrated distribution, such as practised by SEWA in India, where life insurance is distributed through already existing fixed deposit accounts could help to curb these costs.

One element that is almost completely absent in existing micro-insurance and similar insurance institutions focused on relatively poor customers is reinsurance. Being able to purchase reinsurance would have several benefits: it can improve the ability of insurers to grow, it helps to stabilise financial results, it protects against catastrophic losses and it improves underwriting expertise. The promising use of reinsurance in low-income markets is to 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 paramount that primary insurers have sound pricing policies and control against abuse. Among the survey respondents in Brown and Churchill, all the partner institutions in partner-agent arrangements were likely to have reinsurance contracts as well as some of the cooperative insurers. However, few of the MFIs and other

smaller organisations in their study have reinsurance and are therefore highly exposed to sudden increases in claims and are missing out on a potentially valuable source of expertise.

5. Insurance Products for the Poor

So which products are most promising to offer to the poor? In this section, I will focus on four types of products – their strengths and problems. In particular, it will discuss life insurance, health insurance, property-related insurance and finally, 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 minimising 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 policy holder dies. Often exclusions for causes of death are also applied, for example AIDS related deaths are not covered. 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[9]. 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 policy holder rather than the institution. ACODEP's (Nicaragua) life saving insurance is a good example. Its policy provides a benefit, 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 an option of increasing the coverage to double the amount for an increased premium. In this sense, these are much better products to promote and develop as part of insurance provision to the poor, but currently their availability is limited.

In theory, endowment life insurance can provide low-income households with complete protection against death risks and, through a saving and loan components, partial insurance against other risks and life cycle needs. Delta Life in Bangladesh has been a pioneer in marketing this kind of product to the poor. However, Delta Life has experienced difficulty in managing its loan portfolio, potentially jeopardising its ability to pay out the promised bonuses as the policies mature. Such a product therefore makes the holding of larger reserves necessary and requires more sophisticated actuarial expertise in its management. Still, the experience of Delta Life is an interesting one, and it would be worthwhile to promote their types of products further – but again suggesting that the best model would be a partner-agent model with a sufficiently strong partner.

An important question when offering insurance to the poor is whether this can be done profitably. All the 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. Reserves

[9] It is in fact plausible that if reinsurance was properly used as an instrument by MFIs, the cost of mandatory life insurance linked to outstanding loans would be much lower for the customers than it is at present – so that in many ways this form of insurance is not a benefit to customers but rather a cost related to inefficiency.

holdings differed greatly from 1.9 times level of claims to several hundred times for very similar policies. 10-20 times annual claims may be an advisable reserve holding. All insurers had expense ratios of well below 60 % (claims expenses + operating costs / annual premium revenues). For example, IFOCC (Peru), used 44 % of its premium income to cover claims and just 5 % 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 communities. The following table, taken from Brown and Churchill gives some preliminary performance guidelines for institutions offering life insurance.

Table 8: Guidelines for Institutions offering Life Insurance

	Claims Ratio	Distribution Costs	Reserves	Claims 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 firstly because it may suffer from adverse selection and moral hazard and secondly because it usually entails the provision of a tangible service: 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 both require that more than 60 % of the members of a group agree to enroll before coverage is extended to a cooperative, trade union, or 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 policy holders 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 though, before a family purchases a policy. But some clearly make errors in designing their schemes. ASSABA in Guatemala (see box 1) did not manage to enforce that all members of a family had to enroll, so that families enrolled only those most likely to be ill – with disastrous problems for the sustainability of the scheme. It also did not impose any waiting time before one could benefit from in-patient care.

To provide the right incentives to the service provider, various payment mechanisms can be used. One form of payment that works well, when good quality control is in place is capitation payment: the insurance scheme pays the provider a fixed amount per member for all members and the provider agrees to provide all the defined care 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 leaves the provider with all the risk in case of excessive usage and the provider may be unwilling to agree to such a scheme. Therefore, fee for service may be more practical. Alternatives are fixed cash subsidies which are given to each member to pay for their health charges regardless of actual claims.

Three different methodologies are employed to fund the 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 the health service is provided by staff exclusively dedicated to the health plan, often provides the most convenient access. ASSABA (Guatemala) used this system. However, many types of health care services cannot be provided in a cost-effective manner by salaried personnel dedicated to only serving members of a health plan. If they are provided locally, dedicated health-care facilities can offer convenient, quality care, but this approach requires increased administration to monitor the services that are provided and members' usage of the covered services. Indemnity coverage reduces the administrative difficulties for the health plan, but gives it less control over the quality of care and may not provide effective coverage for members who cannot afford to pay for services up front and receive reimbursement later.

Unfortunately, health insurance schemes aimed at relatively low income customers are often liable to serious losses. For example, three out of four providers to whose financial results Brown and Churchill (2000) obtained access were not covering their costs. One had expense ratios of 216 %, highlighting the challenge of offering health care insurance profitably to low-income households. The only non-loss making plan they found, COHI (Benin) only offers very limited coverage with many exclusions and restrictions, thus also limiting the value of health insurance to its customers.

Box 1 Health Insurance by ASSABA, Guatemala

In poor rural communities, access to basic health care is often severely limited. Community initiatives to generate health care financing through voluntary prepayment schemes are an attempt to overcome the limited access to basic health care in poor rural countries. An example from Guatemala highlights some of the problems that can lead to failure. This discussion is based on the experience of the Asociacion por Salud de Barillas (ASSABA) in Guatemala, based on a paper by Ron (1999). The author contrasted the ASSABA experience with a study of a similar scheme, the ORT Health Plus Scheme (OHPS) in the Philippines that was much more successful.

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

ASSABA, as a grass-roots, participatory community association created to improve the health of its members was well motivated and prepared, compared to similar schemes in other places, such as in the Philippines. However, at the conceptual stage, ASSABA, was not yet sufficiently 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 must 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 was clearly a contributing factor to failure, and more successful schemes typically strictly enforced their registration rules and did not

allow individual family members to register, but also did not change perceived benefits.

The lessons from ASSABA's relative failure include a number of issues. The regulatory framework needs to be firmly established and potential local problems have to be taken into account before setting up a scheme. The benefits package has to be designed with the needs of potential members in mind, while contributions have to be kept sufficiently low with payment possible as small regular contributions. Rules for registration such as group or family membership need to be strictly enforced, while a minimum period of membership prior to service use can also be helpful in protecting against adverse selection.

Source: Ron (1999).

A third plausible insurance product is *property insurance* – including against fire or theft. Few providers have experience with property 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 poorly defined property rights and titles that are difficult to enforce. If assets are identifiable, their value is likely to be relatively low increasing valuation costs relative to the value of the policy. The experience of La Equidad in Colombia may nonetheless be helpful in designing new products. La Equidad offers comprehensive coverage on many types of risks after conducting substantial market research into clients' needs. As a consequence its property insurance is not tied to an outstanding loan. Policy holders themselves determine the value of the asset. Since the premium is tied to the insured value of the asset, policy holders have an incentive to state the true value. Following this mechanism simplifies the sales process greatly. La Equidad then also varies premiums according to the risk exposure of their clients based on their type of business: service, trade related or manufacturing.

Property insurance for the poor typically does not adjust premiums based on preventive measures in place, most likely because of obvious enforcement problems. But as a substitute, La Equidad offers regular group meetings for policy holders to train them in how to put basic preventive measures in place. To prevent against moral hazard, two mechanisms are used: deductibles and claims inspectors. However, all insurers indicated that sending claims inspectors was too expensive for small claims. There is little information on the financial performance of property insurance since it is so rare. This may also be the case, because 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 in contrast to death or health problems, which they will have to deal with eventually for certain, property risk is less certain.

A final insurance product is currently not often offered, and definitely not by MFIs: *weather insurance*. This is a type of product that is receiving currently a lot of attention (see e.g. Skees et al., 2004). The background is that it remains the case that agricultural risks, linked to drought or other weather events, remain some of the most crucial risks faced by the poor, including in Latin America. Systems to insure crops have however generally been a costly failure. This means that there is a continued interest in finding alternative insurance mechanisms. It is helpful to be reminded why crop insurance tends to fail so easily. Many factors are involved, but a key one is definitely the problems related to moral hazard and (related) to costly verification of the losses implied by specific weather events. The high covariance involved in agricultural risks and related reinsurance problems compound these problems.

However, there have been innovative suggestions related to designing systems that may not be as liable to some of these problems. The idea is to supply insurance not based on crop loss assessments, but on the basis of weather indexes. Given the relatively easy observability of weather indexes, such a system may be able to avoid problems of moral hazard and adverse selection, and in general save on transactions costs. Still, it is dealing with a seriously covariate risk, but the recent evolution in international markets for unusual and catastrophic risk suggest that reinsurance via 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 as well as the possible drawbacks of moving to a system of weather insurance to provide protection to the poor dependent on rainfed agriculture. In this country, there have been various systems of agricultural insurance since the 1940s. Most have been largely unsustainable with recurring serious financial problems causing their effective collapse. The system in place since 1990 has been relatively more stable, providing seemingly crop insurance in a relatively cost-effective way. For example, the loss-ratio (the ratio of payouts relative to premiums) has been rather high – often above 80 percent. The underlying institutional setup was a system run by AGROASEMEX, a government-owned insurance and reinsurance company. Until 2001 it provided direct insurance to farmers, although now it 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. Much insurance and reinsurance is effectively linked to credit operations as well. But its relative success is largely due to its focus on a highly productive and financially viable part of agriculture, virtually exclusive large-scale commercial agriculture, as its key mechanism to save on transactions costs and monitoring costs for moral hazard and adverse selection. As a basis for insurance to the poor, the system is unlikely to be relevant. For small scale and poor farmers, the only available scheme is FONDEN, which is effectively a simple disaster relief scheme, functioning as a safety net. Indeed, these relatively small farmers do not get any 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 also to these poorer and smaller farmers. Asymmetric information problems are largely resolved and insurance could be offered, for example based on small mutual insurance groups, who can obtain rainfall reinsurance via these bonds. The bonds could be priced for reinsurance, since historical data on rainfall are available and indeed, they possibly even could be traded internationally. Even without reinsurance via international markets, there is still a case for reinsurance via the government budget and aid: the fact that an instrument may be available that can be provided at relatively low transactions costs to groups of relatively poor farmers means that there is a genuine case for subsidisation for equity and possibly efficiency reasons.

One should nevertheless be careful not to idealise the possibilities involved with rainfall insurance. To reach the poor, it is bound to involve substantial transactions costs, while to be effective, the correlation between rainfall measured at reliable stations and local yields has to be high. The latter is not necessarily guaranteed since rainfall stations are typically rarer in low potential agricultural areas with limited commercial farming interest. Also, the sustainability of the scheme will depend on

the relative predictability of the weather uncertainty. Some weather phenomena, such as global warming or El Niño are not well understood, affecting pricing, and the high covariance involved will require premia with high frontloading, making the insurance more expensive for the poor. Overall, however, such new products deserve experimentation and more study to understand the possibilities for effective delivery of insurance against weather risk to the poor. Indeed, moves in Mexico towards using weather-based indexes will provide helpful experience, as well as current experimentation in other countries, such as India and elsewhere (Skees et al., 2004).[10]

6. Regulation for Insurance Provision to the Poor

The previous section has identified a number of products that could be successfully offered to the poor. To enable these products to reach the poor effectively but via sustainable institutions, the partner-agent model was identified as the best way of going about this. In this and the next section, I return to these institutional arrangements. The partner-agent model suggested above aims to take advantage of the respective strengths of the different parties involved in insurance provision to the poor. The 'partner' is meant to be an established insurer, with experience and interest in broadening its insurance portfolio to include products suitable for the poor. To be successful as an operation, it will need to design contracts that provide the appropriate incentives for the insurance arrangements to be sustainable, while credible to the agents and its clients. Earlier, the argument was made that the problems related to risk-induced poverty traps implied a case for subsidized insurance, using efficiency arguments. While the case for subsidies may be there, this does not mean that it is straightforward to implement: the case for subsidies or other government intervention opens in itself opportunities for rent-seeking on the part of the 'partner' towards the government, not least given the political economy consequences of a scheme focused on service provision to the poor. The 'agent' will have to be provided with the appropriate incentives to keep the overall portfolio sustainable. These agents are likely to have to be institutions with a finance focus but 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 specific microinsurance providers could be fostered.

There is substantial scope for an effective government contribution to support more entry into the insurance market serving the poor. A favourable 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

[10] Price insurance is not explicitly considered in this paper, even though forms of price stabilisation have often been implemented for their insurance value, while forward contracts effectively provide insurance to farmers in an increasing number of countries. Pure price insurance schemes are less common, but may well be highly beneficial if designed well. As a highly covariate shock, some of the issues related to 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 indeed subsidise 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 even though its minimum scale is likely to be high.

to the low income segment of the market more attractive to established insurers. The strategy is unlikely to involve large scale subsidies, but rather government spending on establishing the market infrastructure, institutions and regulatory environment to foster branching out into this segment of the market. Unfortunately, such a policy environment does not exist in Latin America. In fact, some of the existing regulations actually biases against the proliferation of finance and insurance products towards the poor.

In a report by Jansson and Wenner (1997), the following regulatory requirements have been identified as biasing 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 capitalised by cash contributions. These will be examined in turn.

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 attain a large enough client base 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 and recent surveys of insurance executives, including 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, otherwise financially healthy insurers 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 the low income Bolivians for 24 years and 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 such as finance companies, however these are often severely limited in the type of activities they are allowed to undertake. Alternatively, low-income insurers sometimes offer insurance through cooperatives or credit unions as member benefits, which are financed through interest payments on outstanding loans. However, the risk of this is that such institutions no longer have any external requirements of maintaining financial integrity. Regulation in the form of capital requirements is sensible to ensure the sustainability, but its current state does not take into account the specific needs and problems of the microfinance institutions. Alternative arrangements, such as agent-partner relationships with established insurers providing reinsurance of the 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 to be capitalised by cash contributions. This is an obstacle, since MFIs are usually formed by NGOs with existing loan portfolios and insurance is in the first instance offered as part of existing credit relations. NGOs are in these cases required to transfer cash and clients to the new institution, which in turn is required to repay the individual loans to the NGOs making the set-up of an MFI prohibitively 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 capitalise the new institution, as long as this value is adequately and independently evaluated.

Ownership restrictions with regards to financial institutions can also be a crucial obstacle to the formation of regulated microfinance entities. In Honduras, for example, institutional ownership is not permitted, so that NGOs cannot be owners of 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 thus to escape external auditing of their portfolios. It may therefore be advisable to adapt some of the existing regulation for example by lowering capital requirements for microinsurers, universally 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 the 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 overall financial architecture. While some efforts to make the regulation more relevant for the circumstances of the MFIs are necessary, it is unlikely to be advisable to lift all these regulations, even if MFIs typically would see these rules going against their interests. Some relaxation of the rules for MFIs combined with incentives and possibly requirements for MFIs to foster links with established insurers as part of partner-agent institutional models could allow the same degree of sustainability and credibility for the microinsurers. In any case, even in the current regulatory climate, careful usage of the partner-agent model could provide a solution for MFIs to expand their activities without falling foul of the regulator.

7. Local Institutions and Insurance Provision to the Poor

One should however be careful not to idealise the ability of MFIs to easily and effectively provide insurance to the poor. While they are bound to be crucial as an intermediary for established insurers to enter some of the low income segments of the market, their own ability to effectively reach the poor should not simply 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. Those people end up largely dependent on their own strategies to cope with risk, even if seemingly appropriate alternatives are available. Any program aimed at including the poor has to 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, which is 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 different incentives need to be discussed, focusing on the overall benefits of the scheme[11]. 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 papers 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 us for example 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 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 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.

[11] It is sometimes argued that crowding out of local institutions, such credit and insurance systems, has to 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.

The 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 reneging on the agreement, which in turn is affected by the availability of outside financial intermediation. However, even if the pay-off from reneging 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 it also affects the distribution of wealth in a community -- hopefully making it more equal -- thus 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 via 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.[12] 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 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 via 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 welfare improving possibilities. To put it simply, schemes may still result in overall negative welfare effects. Furthermore, if villagers are heterogenous in wealth, 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.

[12] Burial insurance, which is a simple type of life insurance, is often organised in this manner.

Conclusion

This paper has highlighted that the poor in Latin America face substantial risk, in the form of natural, health and related, social and economic risks. The poor are also more likely to be affected by these risks. The high degree of urbanization and commoditization in LAC countries makes Latin America different from other developing countries. In general, the poor use sophisticated mechanisms to cope with this risk – but this is not enough. The welfare losses are substantial: the coping mechanisms themselves come at an additional cost in term of long-term welfare. As such, risk and the responses to it contribute to poverty persistence. There is a clear need for further policy action 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.

The paper 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 both not cost-effective and sufficient to reach the poor. Other parts of such a system would be ex-ante measures in the form of stimulating and protecting self-insurance via savings, reducing risk and fostering credit for the poor both as a form of insurance as well as 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 are not suitable to be dealt with via 'ex-ante' insurance-related mechanisms – examples are certain covariate economic or catastrophic risks. Much risk, including economic and social risk is also largely man-made, and reducing their impact requires action related to addressing the causes of these risks – inflation, crime or waste-related risks are examples. Just providing 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 the most suitable, in which 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 micro-finance institution (MFI). The advantage is that this would include a mechanism to ensure relatively easy access and terms for the poor, while costs are reduced and sustainability is ensured via reinsurance and contracting with an established insurer. From case-studies, it appears that a number of products appear to 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 via the 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 for the poor shows that it is difficult to offer comprehensive coverage profitably to low-income households. This is in part to do with the financial capacity of clients as well as the lack of opportunities for diversification. The most sustainable type of insurance is term life insurance. The support of governments, donors and NGOs is necessary to branch out

into other types of products if useful benefits are to be provided profitably. Product features should include group policies, mandatory insurance and positive incentives to cope with moral hazard and adverse selection, for example by rewarding members who have had a claim free 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 Columbia. 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 there is likely to be a case for subsidies for insurance to the poor on efficiency grounds, an important role for the government to foster more insurance to the poor would be to establish a much more effective regulatory framework to foster the establishment of more local level MFIs for insurance, while maintaining overall stability and credibility of the entire system. While there may be a case for relaxing entry requirements for MFIs into insurance provision, there would definitely be an argument to provide incentives to develop more partnerships between MFIs and established insurers in the form of partner-agent models, even within the current relatively strict regulatory environment.

One should not be naïve about the ability of MFIs to easily and effectively reach the poor in terms of providing insurance. At the same time, it is important to acknowledge the presence of indigenous insurance and other finance-related institutions. There is a clear scope for involving these institutions as intermediaries in insurance provision, using their own local knowledge and reputation with overall welfare benefits.

Finally, one should be clear about what one is trying to achieve by providing more insurance to the poor. Uninsured risk means that poverty is perpetuated – indeed, a risk-induced poverty trap may well occur. More insurance, as part of a credible comprehensive system of 'social protection', aims to allow the poor to sustain their assets and to enter into more profitable, risky activities. In short, it would allow the poor to focus more on their long-term poverty, beyond simply surviving in the short run. However, for this strategy to be successful, the system cannot have any uncertainty attached to it either. The credibility and sustainability of insurance provision as part of a broader social protection system has to be central. The issue is not who should provide the services as part of the system: different agents, including NGOs, community organisations or the private sector, could play a significant role in the delivery of these social protection measures. There is a crucial role, however, for the government to develop and support an appropriate regulatory and institutional framework for such programmes, and sustainable and transparent institutions to monitor these activities.

This issue cannot be underestimated. Institutions in developing countries, including LAC countries, are often not transparent and sustainable, and therefore well-intentioned measures may lack credibility. Credibility is not easily gained, and governments face an uphill struggle to acquire it. This identifies an important role for aid and the donor community: by supporting and guaranteeing the enforcement of these measures the welfare benefits of insurance provision for the poor could be substantially enhanced through its long-term effect on poverty.

References

African Development Bank, 2003, *Gender, Poverty and Environmental Indicators on African Countries, 2002-2003*.

Armendariz de Aghion, Beatriz and Jonathan Morduch, 2000, *Microfinance beyond Joint Liability*, Economics of Transition, 8(2), pp. 401-420.

Asian Development Bank, 2003, *Key Indicators 2003: Education for Global Participation* (*Part III: Regional Tables*).

Attanasio, O. and J. Rios-Rull (2000), 'Consumption Smoothing and Extended Families', mimeo, University of Pennsylvania.

Banerjee, Abhijit and Andrew Newman 1993, 'Occupational Choice and the Process of Development', *Journal of Political Economy*, 101, 2: 274-98.

Banerjee, Abhijit, 2004, The Two Poverties, chapter in Stefan Dercon (ed.), *Insurance against Poverty*, Oxford University Press.

Besley, Timothy, 1995, *Nonmarket Institutions for Credit and Risk-Sharing in Low-Income Countries*, Journal of Economic Perspectives, 9(3), pp. 115-127.

Binswanger, Hans, 1986, *Risk Aversion, Collateral Requirements, and the Markets for Credit and Insurance in Rural Areas*, in Hazell, P., C. Pomerada and A. Valdes (eds), *Crop Insurance for Agricultural Development*, John Hopkins University, pp. 67-86.

Braverman, Avishay, and J. Luis Guasch, 1986, *Rural Credit Markets and Institutions in Developing Countries: Lessons for Policy Analysis from Practice and Modern Theory*, World Development, 14(10-11), pp/ 1253-1267.

Brown, Warren, and Craig Churchill, 2000, *Providing Insurance to Low-Income Households. Part I: Primer on Insurance Principles and Products*, Microenterprise Best Practices.

Brown, Warren, and Craig Churchill, 2000a, *Insurance Provison to Low-Income Households. Part 2: Initial Lessons from Micro-insurance Experiments for the Poor*, Microenterprise Best Practices.

Brown, Warren, and Craig Churchill, 2000b, *A Cautionary Note on Microfinance Institutions and Donors Considering Developing Microinsurance Products*, Microenterprise Best Practices.

Chacaltana, Juan, 2002, *Social Funds and the Challenge of Social Protection for the Poor in Latin America*, Conference on Social Protection, ADB-IADB.

Chen, Martha, and Donald Snodgrass, 2001, *Managing resources, Activities, and Risks in Urban India: The Impact of SEWA Bank*, USAID, Assessing the Impact of Microenterprise Services Project.

Coate, Stephen and Martin Ravallion (1993), 'Reciprocity without Commitment: Characterisation and Performance of Informal Insurance Arrangements', *Journal of Development Economics*, Vol.40, 1–24.

Conning, Jonathan and Michael Kevane 2004 *Why isn't there more Financial Intermediation in Developing Countries?*, chapter in Stefan Dercon (ed.), *Insurance against Poverty*, Oxford University Press.

Collier, Paul, 2004, *The Macroeconomic Repercussions of Agricultural Shocks and their Implications for Insurance*, chapter in Stefan Dercon (ed.), *Insurance against Poverty*, Oxford University Press.

Dercon, Stefan, 1996, *Risk, Crop Choice, and Savings: Evidence from Tanzania*, Economic Development and Cultural Change, 44(3), pp. 485-514.

Dercon, Stefan, 2002, *Income Risks, Coping Strategies, and Safety Nets*, World Bank Research Observer, 17 (2), pp. 141-66.

Dercon, Stefan and John Hoddinott, 2004, *Health, Shocks and Poverty Persistence*, chapter in Stefan Dercon (ed.), *Insurance against Poverty*, Oxford University Press.

Dercon, S. (ed.), 2004, *Insurance against Poverty*, Oxford University Press.

Economic Commission for Latin America and the Caribbean (ECLAC), 2002, *Panorama Social de América Latina, 2001-2002*.

Fafchamps, Marcel, 2003, *Risk, Poverty and Development*, Elgar Publishing.

Ford Foundation, 2000, *Roundtable on Microinsurance Services in the Informal Economy: The Role of Microfinance Institutions*.

Gaviria, Alejandro and Carmen Pages, 1999, *Patterns of Crime Victimization in Latin America*, Interamerican Development Bank, Working Paper 408.

Genicot and Ray 2003 Group Formation in Risk-Sharing Arrangements. *Review of Economic Studies*, 70 (1), pp. 87-113

Ibarra, Hector 2003, *Comments on 'Risk Managed Challenges in Rural Financial Markets' by Jerry Skees*, AGROASEMEX, mimeo.

Jacoby, Hanan G., 1994, *Borrowing Constraints and Progress through School: Evidence from Peru*, The Review of Economics and Statistics, 76(1), 151-160.

Jannson, Tor and Mark Wenner, 1997, *Financial Regulation and its significance for Microfincance in Latin America and the Caribbean*, Washington D.C.

Holzmann, Robert and Steen Jørgensen 2000, 'Social Risk Management: A New Conceptual Framework for Social Protection and Beyond', Social Protection Discussion Paper Series no. 6, Washington D.C.: The World Bank.

Kaztman, Ruben, 2003, *La Dimensión Espacial en las Políticas de Superación de la Pobreza Urbana*, ECLAC: Serie Medio Ambiente y Desarrollo, 59.

Lustig, Nora (editor) 2000 *Shielding the Poor*. Social Protection in the Developing World, Brookings Institution and the Inter-American Development Bank.

McCord, Michael J., Jennifer Isern, and Syed Hashemi, 2001, *Microinsurance: A Case Study Example of the Full Service Model of microinsurance Provision. Self-Employed Women's Association*, MicroSave-Africa.

Morduch, Jonathan, 1995, 'Income Smoothing and Consumption Smoothing', *Journal of Economic Perspectives*, Vol.9 (Summer), 103–14.

Morduch, Jonathan 1999, 'Between the State and the Market: Can Informal Insurance Patch the Safety Net?', *World Bank Research Observer*, Vol.14, No.2 (August), 187–207.

Morduch, Jonathan, 2004, *Consumption Smoothing Across Space: Testing Theories of Risk-Sharing in the ICRISAT Study Region of South India*, chapter in Stefan Dercon (ed.), *Insurance against Poverty*, Oxford University Press.

Moser, Caroline, 1998, *The Asset Vulnerability Framework: Reassessing Urban Poverty Reduction Strategies*, in *World Development*, 26(1), pp. 1-19.

Pizarro, Roberto, 2001, *La Vulnerabilidad Social y sus Desafíos: Una Mirada desde América Latina*, ECLAC: Serie Estudios Estadísticos y Prospectivos, 6.

Ravallion, Martin, 2001, *On the Urbanization of Poverty*, World Bank, Working Paper 2586.

Ron, Aviva, 1999, *NGOs in community Health Insurance Schemes: Examples from Guatemala and the Phiippines*, Social Science and Medicine 48, pp. 939-950.

Rosenzweig, Mark and Hans Binswanger, 1993, *Wealth, Weather Risk and the Composition and Profitability of Agricultural Investments*, Economic Journal, 103, pp. 56-78.

Rosenzweig, Mark and Kenneth Wolpin, 1993, *Credit Market Constraints, Consumption Smoothing, and the Accumulation of Durable Production Assets in Low-Income Countries: Investments in Bullocks in India*, Journal of Political Economy, 1001(2), pp. 223-244.

Rutherford, Stuart, 1999, *The Poor and their Money*, Institute for Development Policy and Management, University of Manchester.

Sadoulet, Loic, 2002, *Incorporating Insurance Provisions in Microfinance Contracts. Learning from Visa®?*, WIDER, Discussion Paper 2002/56.

Sen, Amartya, 1966, *Peasants and Dualism with or without Surplus Labour*, Journal of Political Economy, 74(5), pp. 425-450.

Skees, Jerry, Panos Varangis, Donald Larson and Paul Siegel, 2004, Can Financial Markets be Tapped to Help Poor People Cope with Weather Risks? hapter in Stefan Dercon (ed.), *Insurance against Poverty*, Oxford University Press.

Tesliuc, Emil D., and Kathy Lindert, 2002, *Vulnerability: A Quantitative and Qualitative Assessment*, The World Bank, Guatemala Poverty Assessment Program.

Townsend, Robert M. 1995, 'Consumption Insurance: An Evaluation of Risk-Bearing Systems in Low-Income Economies', *Journal of Economic Perspectives*, Vol.9 (Summer), 83–102.

World Bank. 1999. *Consultations with the Poor. National Synthesis Reports* (Argentina, Bolivia, Brazil, Ecuador, Jamaica), Informal publications series prepared for Global Synthesis Workshop: Consultations with the Poor, Poverty Group, PREM, Washington, DC.

World Bank 2000, *World Development Report 2000/01: Attacking Poverty*, Washington DC.

World Bank 2003, Guapa: The Guatemala Poverty Assessment, Washington D.C.: World Bank.

Zaffaroni, Cecilia, 1999, *Los Recursos de las Familias Urbanas de Bajos Ingresos para Enfrentar Situaciones Críticas*, in Ruben Kaztman, *Activos y Estructuras de Oportunidades. Estudios sobre las Raíces de la Vulnerabilidad Social en Uruguay*, ECLAC: ECLAC and UNDP.