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Research Report

Individual Insurance and Mutual Support Arrangements in Developing Countries

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Individual Insurance and Mutual Support Arrangements in Developing Countries

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Individual Insurance and Mutual Support Arrangements in Developing Countries

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Insurance coverage in the developing world is expanding rapidly. As recently as 2005, only a small number of commercial insurers offered insurance products that specifically targeted low-income people ('microinsurance'). Seven years later, in 2012, more than half of the world's 50 largest insurance companies were involved in microinsurance ([Churchill and McCord, 2012](#)). International donor organizations, which identified the promotion of social protection systems as a key priority, strongly encourage this development. Yet, while the positive role insurance can play for poverty reduction is fairly uncontroversial, the potential negative side-effects of the rapid insurance expansion are less apparent. One concern is that the establishment of formal insurance schemes can lead to a paradigm shift: market-based schemes crowd-out social cohesion; adversely affecting the mutual support arrangements that form an important pillar of the risk management strategies of the poor. Evidence is not clear-cut.

Background

Mutual support arrangements – important, yet insufficient

In developing countries, state assistance to the poor is often inadequate and access to formal insurance is traditionally very low. A particular concern is health insurance. As depicted in Figure 1, over one-third of the world's population lacks any form of legal health coverage ([ILO, 2014](#)). In particular, in low-income countries access to health insurance is low to non-existent.

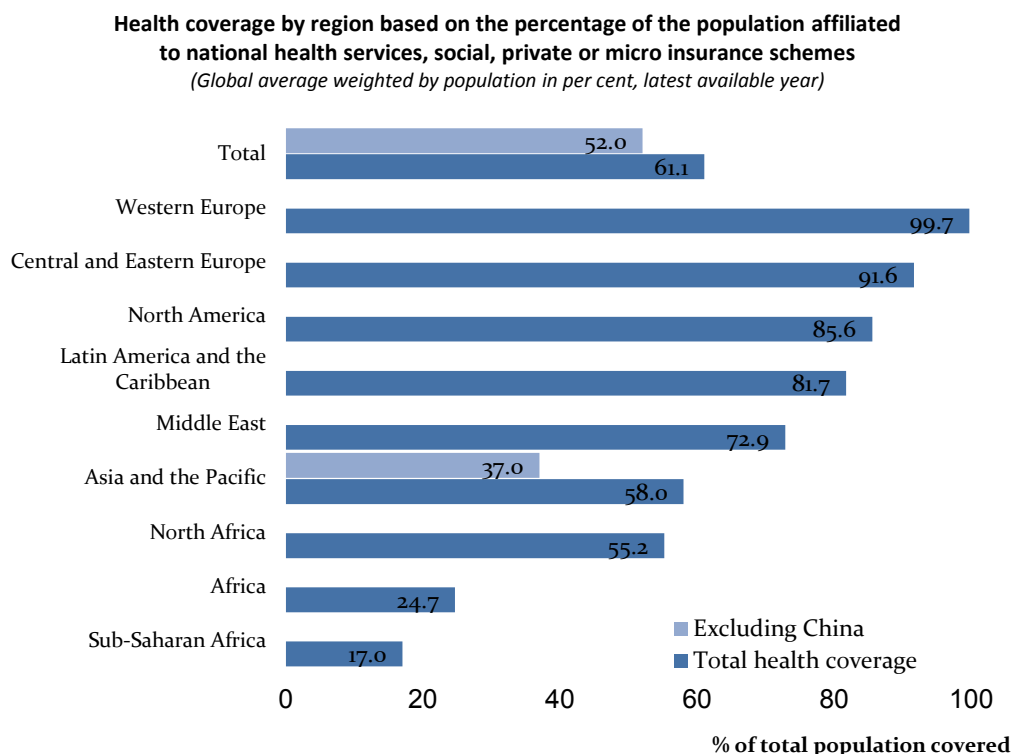


Figure: Health coverage by region based on the percentage of the population affiliated to national health services, social, private or micro insurance schemes (ILO 2014, p.102)

Consequently, in emergency situations, low-income households rely heavily on the help of neighbors, friends, and their extended family. Research provides ample evidence for complex mutual support arrangements at the village level, which provides a cushion in emergency situations: Fafchamps and Lund (2003) study borrowing networks in mountain villages in northern Philippines; Dercon and De Weerd (2006) examine risk sharing in response to health shocks in villages in Tanzania; and Jackson, Rodriguez-Barraquer and Tan (2012) look at favor relationships in villages in rural southern Karnataka, India. In addition to the private support networks, in many countries there are more or less formalized risk sharing groups, typically on the community level, that assume insurance-type functions (such as the burial societies in South Africa or the farmers' groups (iddirs) in Ethiopia).

Typically, these types of informal insurance arrangements are not sufficient. They are not suited for larger hazards and can break apart in the case of covariate shocks that affect many communities simultaneously (e.g. extreme weather events). Furthermore, informal risk-sharing arrangements often trigger dependencies that can lead to sub-optimal decision making: Grimm et al. (2013) show how the pressure to share income with family and kin can adversely affect investment decisions of entrepreneurs in Burkina Faso; Baland et al. (2013) illustrate the negative effect of receiving regular transfers on labor market decisions for the case of family networks in Cameroon.

Both policymakers and researchers have high expectations that formal insurance schemes - if designed carefully - can lead to a substantial improvement of risk coverage and poverty reduction: Microinsurance "allows low-income people to

secure themselves financially, socially and economically ... [it] makes a significant contribution to social security and hence to poverty reduction” (BMZ 2009, p. 4).

Rapid expansion of formal insurance in recent years

Over the last years, formal insurance coverage in developing countries has increased considerably. Commercial insurers have expanded their activities into new markets (e.g. [the microinsurance initiatives by Allianz](#)); increasingly, local cooperatives provide elaborate insurance schemes for their members; while non-governmental organizations promote the evolution of community-based insurance or develop own insurance policies (e.g. [Care Foundation in India](#)). This development is backed by the international donor community that emphasizes the importance of enhancing the social security of the poor.

As a result, the number of insured low-income people in developing countries is estimated to have more than quadrupled since 2006. Approximately 500 million low-income people are estimated to have had some form of insurance in 2012 ([Churchill and McCord, 2012](#)). It is typically assumed that this translates into a direct improvement of overall risk coverage. However, it is not clear how the traditional mutual insurance arrangements are affected by the rapid expansion of formal individualized insurance. A crowding out of mutual support can have adverse implications for effective risk coverage.

Relevance for policymakers: Potential adverse effects on overall risk coverage

An analysis of the interplay of formal and informal insurance is not only interesting from a researcher’s perspective, as it exemplifies the interaction of market and non-market structures and norms; it is also highly relevant for policymakers concerned with improving risk coverage of the poor, as the establishment of formal insurance could essentially result in a decline in overall risk coverage. One concern are those who remain uninsured: As most microinsurance schemes focus on those with a regular income who can afford to pay the insurance premium, the very poor remain reliant on their community and family support structures. A dissolution of these support structures, resulting from increased availability of individualized insurance, might leave the very poor more vulnerable. Another concern is the overreliance of the newly insured: Formal insurance schemes are tied to very specific hazards and are less flexible than most informal risk-sharing arrangements. Overreliance on the formal schemes and a reduced investment in alternative insurance arrangements increases vulnerability.

Predictions and Evidence

But does the expansion of insurance indeed weaken mutual support? What can we learn from the literature? Unfortunately, up to now, very little. None of the larger quantitative impact studies on microinsurance interventions focus explicitly on the implications for traditional support arrangements. This is not very surprising. Insurance expansion into the developing world is still a new phenomenon; yet, to observe changes in behavior, panel data over a relatively long period of time are necessary. Furthermore, it is a difficult endeavor to measure functioning and effectiveness of mutual support arrangements.

To derive predictions, it is useful to draw on findings from a related strand of research that analyzes the impact of welfare programs on private transfers, as well as on behavioral studies that investigate social preferences.

Predictions – What can we learn from related literature?

From the behavioral economics literature it is well established that people exhibit social preferences and take into account relative income position and neediness when deciding on transfers ([Fehr and Schmidt, 2006](#)). A number of studies suggest that when people experience less economic insecurity, they increase their support to the more needy. Angelucci and De Giorgi ([2009](#)) analyze the Progresa cash transfer program in Mexico over a two year period, and find that households receiving cash transfers, on average, increased their private transfers to ineligible households. They argue that the observed increase in private transfers may be due to an improvement in the economic situation of the eligible households. Based on these findings, one might expect that formal insurance expansion could result in an improvement in risk coverage. The reduction of uncertainty of households that take up insurance – as a knock-on effect - increases their willingness to support those that remain uninsured, resulting in an overall reduction of vulnerability.

Yet, there are studies suggesting that the establishment of formal insurance might adversely affect the willingness to provide to the needy, thus resulting in a weakening of local social norms and the traditional support arrangements. In his book “What money can’t buy” (2012), Michael Sandel discusses how non-market norms can erode when a non-market good is turned into a market commodity. Sandel uses the system of blood collection as an example: the provision of monetary incentives for blood donation considerably reduced altruistically motivated blood donation; thus the commercialization of a good changed “the meaning of donating it” (Sandel 2012: p. 126). In the context of insurance, Landmann et al. ([2012](#)) discuss a related driver. They suggest that turning insurance into an individual purchasing decision with a specific price tag attached to it, changes the status of ‘being insured’ to an individual’s own responsibility. Individuals not purchasing insurance might be perceived as deliberately relying on others; they might be ‘punished’ with, *ceteris paribus*, reduced transfers in times of need. Indeed, behavioral experiments show that the extent to which neediness is self-inflicted significantly impacts the transfer decisions from others (e.g. [Thral and Rademacher, 2009](#); [Cappelen et al., 2010](#)). In line with these considerations, mutual support might decline despite the improvement in the income position of the insured.

Evidence

Based on these findings, predictions for the effect of insurance on solidarity are not clear-cut. Indeed, the few studies that focus explicitly on the implications of formal insurance for mutual support arrangements come to differing conclusions.

There is evidence that with the introduction of individual insurance, mutual support remains, with improving risk coverage.

Mobarak and Rosenzweig ([2013](#)) analyze the implementation of a rainfall-insurance product in rural communities in India, which are characterized by strong caste-based social networks. The authors find that the immediate social network, the sub-caste, compensated individual losses that were not covered by the insurance product. The willingness to privately support each other seem not have been negatively affected by the formal insurance; rather, formal insurance and informal risk sharing complemented each other. The additional insurance can provide more

leeway to support within the network – a finding in line with Angelucci and De Giorgi (2009). However, the findings need to be interpreted with some caution as the product analyzed covers covariate shocks that occur infrequently and thus forms no direct substitute to the informal insurance arrangements of a community (different to e.g. health insurance).

Other studies draw on behavioral experiments conducted in laboratories or in laboratory-like settings in the field, where participants are asked to make transfer decisions under varying scenarios. The controlled environment allows the researchers to isolate specific factors that might drive the decisions. Lin, Liu and Meng (2014) conduct a laboratory experiment with students in a computer lab in Peking. The students played so-called risk-sharing games based on Charness and Genicot (2009) with insurance intervention added in. In these games, reciprocity is an important driver for transfers: in each round players face a probability of experiencing a positive income shock and can decide to transfer to their partner taking into account that these transfers might be reciprocated in future rounds. The authors show that it is not just strategic considerations that explain a large share of the transfers, but also altruism. Analyzing the insurance intervention, the authors find that the introduction of insurance led to a reduction in the transfers among the participants; hence, with the option to formally insure, private transfers declined. However, the reduction was less than 1-for-1 and overall risk coverage did not decline.

Other studies suggest a crowding-out of solidarity with the introduction of individualized insurance.

A comparatively early survey-based study on microinsurance is the qualitative analysis of the implementation of a life-insurance product in rural Indonesia by Hintz (2009). The product was launched by Allianz in 2006, with the introduction viewed as an important milestone in the development of commercialized microinsurance. Hintz, however, reports a number of negative side-effects, in particular with regard to solidarity within the communities. He finds that in villages where the insurance was introduced, the willingness to provide help declined substantially after the insurance scheme was established. Hintz describes a paradigm shift: the insurance led to an “individualization of risk management ... (furthering) the erosion of social cohesion” (Hintz 2009, p. 232). Such a change in perceptions as result of the establishment of commercialized insurance is in line with Sandel’s proposition. The qualitative design, however, does not allow the researcher to establish a clear causal relationship or to generalize the results.

Landmann et al. (2012) conduct behavioral experiments on the Philippines to analyze the interplay of formal and informal insurance. Participants, local farmers and fishers, played solidarity games in groups of three (Selten and Ockenfels, 1998) and decided on transfers to each other under varying scenarios. The researchers find a reduction in transfers when some type of individual insurance was introduced within the game; hence, a decline in solidarity. This reduction persisted, even after the insurance was removed. The authors presume that the insurance induced some form of change in perceptions. The emphasis on self-responsibility might have led to a reduction of the perceived obligation to provide assistance. These findings are in line with the observations by Hintz and Sandel.

Conclusion

In summary, two main mechanisms that work in opposing directions are proposed. On the one hand, insurance might enhance mutual support through the

improvement of the economic situation of the insured. As uncertainty is reduced, the insured household has more leeway to provide. This could lead to an increase of overall risk coverage. On the other hand, the introduction of formal insurance can result in a change of perceptions and social norms. Insurance might crowd out mutual support through a shift in the perception of responsibility: as insurance becomes an individual's responsibility, willingness to help declines; with the erosion of the mutual support network, overall risk coverage declines.

There is evidence that both mechanisms play a role. When putting the empirical findings in perspective, however, the timing of the intervention, the particular insurance product, and the existing informal support arrangements need to be taken into account. More research is needed. In the field of impact evaluations this research needs to address the long-term effect of specific insurance interventions on the existing mutual support arrangements. And in the field of behavioral economics the interplay between distributive preferences and perceptions of responsibility needs to be further explored.

The existing studies make clear that policymakers, insurance providers and researchers need to be aware of not just the interplay of market and non-market structures, and of the fragility of the village level mutual support systems. Insurance providers should take into account existing informal insurance arrangements when designing and marketing new microinsurance products; policymakers should be conscious of the potential negative side-effects for the people who cannot afford microinsurance; and researchers should broaden the perspective on the community structure when assessing the impact of insurance-type interventions.

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