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**Research Report**

## Why Don't They Take It?

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## Why Don't They Take It?

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Until recently very few people in rural areas in developing countries had access to formal insurance. This is changing rapidly, but there now is growing evidence that when insurance is introduced poor people do not accept (or renew) insurance contracts, even when these are heavily subsidized. This experience of low uptake and renewal rates is puzzling for at least two reasons.



•••/••• First, to an economist the attraction of (actuarially fair) insurance is almost self-evident: such a contract amounts to a mean preserving contraction of the distribution of outcomes and will therefore increase the expected utility of a risk averse agent. (In the real world insurance contracts are not actuarially fair because the insurer must cover his but that cannot be the real explanation since there are few takers for even heavily subsidized insurance contracts.) From this theoretical perspective low insurance uptake simply looks irrational: people do not seem to realize what is good for them.

Secondly, in a dynamic setting insurance may be much more attractive than the conventional static model suggest. The textbook treatment of the insurance decision is essentially static: there is a single period and at the beginning of that period, when there is still uncertainty as to what the state of nature will be, the agent decides whether or not to take insurance. In this static world insurance is attractive because it reduces current risk by eliminating extreme outcomes. That misses part of the story. In a more realistic dynamic setting insurance would do more: it would also affect savings and investment decisions. Insurance would then not only change the distribution (in each period) of outcomes around a given mean, but it would change that mean itself as well. We tend to think of insurance as reducing volatility around an unchanged level or trend (the *ex post* effect) but it also affects the trend itself by giving agents an incentive to save more or less (the *ex ante* effect). Does this matter? Yes, it does. There is evidence that this dynamic effect is positive (insurance leads to higher investment) and that it can be very large in situations where there are no well-developed financial markets<sup>1</sup>. This suggests

that insurance can do much more than helping people to deal with volatility in a static sense: it may also help them to grow out of poverty. This new perspective suggests a much more important role for insurance and partly explains the recent enthusiasm for offering insurance to poor people, typically in rural areas.

The June 2011 FERDI workshop on “Indexed Weather Insurance Contracts” concluded that there now are many competing explanations for the “puzzle” of low insurance uptake and renewal. Jean-Philippe Platteau even spoke of a “plethora” of reasons. One plausible explanation is that the expected utility framework is not appropriate for characterizing choices under risk. There is considerable experimental evidence in support of alternatives such as prospect theory. The external validity of these results is still under discussion and there are very few papers which adopt an encompassing framework so that expected utility can be tested against an alternative. Work in this area is highly desirable. It clearly is very unsatisfactory that insurance contracts must be designed in the absence of a thorough understanding of the way clients take decisions.

Staying within the expected utility framework the explanation for the lack of enthusiasm for insurance can only be that actual contracts do not imply a mean preserving contraction, as assumed in theory. In other words the contract has been designed in such a way that it may actually *reduce* expected utility. Daniel Clarke presented evidence at the workshop that a very large insurance program has this characteristic: for most agents it would be entirely rational to refuse the contract. Technically the problem is that the contract may be designed in such a way that the worst possible outcome actually becomes *worse* rather than better under insurance.

This is obviously a feature of index insurance where entitlement to a payout is not tied to individual outcomes (the size of the harvest) but to an index (possibly based on rainfall data

1. For Zimbabwe see Chris Elbers, Jan Willem Gunning and Bill Kinsey, ‘Growth and Risk: Methodology and Micro Evidence’, *World Bank Economic Review*, vol. 21, 2007, pp. 1-20, for Ethiopia Lei Pan, *Poverty, Risk and Insurance: Evidence from Ethiopia and Yemen*, Tinbergen Institute, 2009 and for an overview Stefan Dercon, ‘Risk, Insurance and Poverty: an Overview’ in Stefan Dercon (ed.), *Insurance against Poverty*, Oxford University Press, 2005.

at a nearby location) which is correlated with individual outcomes. Clearly, the worst outcome (say a harvest failure for the individual) may then become worse: the agent receives no payout but he has paid a premium. Redesigning the contract in a way which avoids this may lead to a complicated contract. This is probably not feasible. There now is much evidence that agents prefer simple contracts even when they would be better off under a more complicated arrangement.

While the 'basis risk' of index insurance (i.e. the imperfect correlation between individual outcomes and the index) is an obvious case, this is not the only way in which contract design leads to contract refusal. Another possibility, likely to be relevant in many developing countries, is related to trust. Suppose a micro-insurance program covers the cost of hospitalization in principle but the agent is not sure whether in a specific instance of hospitalization he will indeed not have to pay. These amounts to a compound lottery: hospitalization occurs with a certain probability and when it does there is a positive probability that the agent will have to pay the hospital costs in spite of being insured<sup>2</sup>. This possibility may make the contract unattractive. Under this specification it is also possible that the agents who accept the contract are less risk averse than those who refuse, another empirical 'puzzle'.

The possibility that there will be no payout can be interpreted in several ways. One is lack of credibility of the insurer: the agent doubts whether the insurer will honor the contract in all eventualities. This is plausible under imperfect contract enforcement (resulting from poor legal and regulatory institutions). This has an important policy implication: introducing insurance

schemes without prior institutional reforms may well be counterproductive. Perhaps this represents a fundamental problem of micro-insurance: it is most needed in situation where it will fail without complementary actions.

A variant is that the hospital makes the agent pay because it is not sure it will be reimbursed by the insurer. The insurer then lacks full credibility with the service provider rather than the insured agent. Another interpretation is that the insurer always complies but that the agent does not fully understand what is covered under the contract.

Unfortunately there is as yet very little direct empirical evidence on the importance of these various forms of trust or credibility problems<sup>3</sup>. There would appear to be a high payoff to applied work in this area. Notably, surveys of potential clients should collect direct information on the client's understanding of what is covered under the contract and his individual perception of the insurers' credibility. This will make it possible to make tests of models relying on limited trust or credibility more convincing.

The recent introduction of many (micro) insurance programs for poor people in developing countries is a very important development. There is a real danger that such programs will be scaled down or abandoned in frustration because of low uptake and renewal rates. Rather than throwing away the baby with the bath water the reasons for the lukewarm reaction of potential clients must be investigated quite carefully. It now seems plausible that insurance requires reform in other institutions and that existing insurance contracts need to be redesigned.

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2. This is explored in Stefan Dercon, Jan Willem Gunning and Andrew Zeitlin, 'The demand for insurance under limited credibility: evidence from Kenya', presented at CERDI May 2011. The compound lottery model goes back to Neil A. Doherty and Harris Schlesinger, 'Rational Insurance Purchasing: Considerations of Contract Nonperformance', *Quarterly Journal of Economics*, vol. 105, 1990, pp. 243-253.

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3. Dercon et al. (2011) use a general trust measure derived from trust games as a proxy for trust in the insurer.



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