Insurance and Poverty Reduction: Evidence from Philippine Urban and Rural Household Data

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Summary

The poor, who are among the most vulnerable sector to economic risks and shocks, are also the least likely to be insured. Even among the poor, rural households are subject to greater risks due to the agricultural nature of their livelihoods and their further remoteness from government services and city amenities. In the Philippines and around the world, poverty also remains a largely rural phenomenon. Hence, the huge gap between the poor and the insured is potentially of paramount policy importance, as insurance coverage can play a vital and more systematic role in poverty alleviation.

In this essay, I use a nationally representative household survey data from the Philippines to explore the relationship between insurance and poverty reduction. I use two rounds of the Annual Poverty Indicators Survey (APIS) conducted by the Philippine Statistics Authority (PSA) in 2004 and 2008, which together comprise a panel dataset of 8,185 households.

In 2008, only 45 percent of Filipino households were insured. I found a huge gap between the poor and the insured: an overwhelming majority (75 percent) of the poor are uninsured. Further, most uninsured households (70 percent) were in rural areas. I further analyzed the vulnerability of Filipino households to poverty by using a poverty transition matrix, which reveals the rate of entry and exit from poverty. Around 40 percent of poor households in 2004 exited poverty in 2008, while around 32 percent of near-poor households and 8 percent of the rest of non-poor households in 2004 fell into poverty by 2008.

I then obtained evidence on whether insurance coverage can reduce vulnerability to poverty by testing the following two hypotheses:

> H1: Insurance coverage can prevent non-poor households from falling into poverty.
> H2: Insurance coverage can help poor households to escape from poverty.

To test the first hypothesis, I used the subsample of households that were not poor in 2004 and used a simple logistic regression that measured the relationship between household poverty status in 2008 and insurance coverage in 2004.

I also included controls such as the age and education of the head of the household and whether the household employed other risk-coping strategies such as selling assets, taking out loans and withdrawing savings. The insurance coefficients were negative and statistically significant, suggesting that households with insurance in 2004 were less

likely to become poor by 2008 than non-poor households without insurance. The magnitude of the coefficients was also greater for rural households than urban households, suggesting that insurance coverage is even more critical for rural households in preventing poverty. Interestingly, withdrawing from savings has no significant effect on household poverty status, while both the sale of property and taking out of loans are significantly positively correlated with poverty. These findings suggest that resorting to such risk-coping mechanisms can push a non-poor household into poverty. Such findings further highlight the advantage of insurance over other risk-coping strategies when households face shocks.

Next, I examined whether insurance can help households to escape from poverty. To test this second hypothesis, I used the same logistic regression equation; but this time I used the subsample of households that were poor in 2004. The dependent variable remains the household's poverty status in 2008 and the explanatory variable of interest was insurance coverage in 2004. I also added the same controls. The coefficients for insurance had the expected negative signs but were insignificant. Similarly, the other risk-coping strategies against shocks—*sale*, *loan*, and *withdraw*—were all insignificant as well. However, as in the previous results, the age and education level of the head of the household had an impact on the probability of remaining poor. That is, having an older and highly educated head of household reduces the chance of remaining poor. These results suggest that insurance coverage may not be as effective in helping already poor households to escape poverty when there are more fundamental drivers of (chronic) poverty, such as lack of access to education and hence to decent, well-paying jobs.

Finally, to check the robustness of the results, I performed a difference-in-difference (DID) analysis using the subsample of households in the six provinces of the Bicol region in the Philippines. In 2006, super-typhoon Reming (international code name: Durian) wreaked havoc in the southeastern part of Luzon Island and caused widespread damage to property estimated at more than Php 600 billion (JPY 1.2 trillion). Casualties reached 655 deaths, 455 missing, and 2,430 injured. The DID results largely confirmed our previous findings. Insurance coverage in 2004 reduced the probability of becoming poor by 2008. However, the DID analysis in this case showed a negative and significant effect of insurance coverage on the probability of remaining poor for already poor households. This suggests that in the face of shocks such as natural disasters, insurance coverage can actually lift poor households out of poverty. For these households, insurance payout when disaster strikes may be large enough not only to help them recover from the shock but also provide them with capital that can aid them out of poverty.

In sum, we find a huge gap between the poor and the insured in the Philippines: only a quarter of poor households are covered by insurance. However, we have shown that insurance can play a significant role in poverty reduction. We found that the main pathway through which insurance impacts poverty reduction is that of preventing non-poor households from falling into poverty. However, our results also suggest that insurance coverage may not be as effective in enabling poor households to escape poverty when there are more fundamental sources of (chronic) poverty, such as lack of access to education. Nonetheless, these findings still highlight the important role of insurance in reducing vulnerability to poverty, particularly among the non-poor who can tip into poverty in the face of a shock. Hence, while insurance may not be a magic cure for the fundamental roots of poverty, it remains a critical tool for diminishing the exposure to poverty of the most vulnerable sectors of Philippine society.