

- This policy brief is written based on the study entitled '*Income Shocks and Household Risk-Coping Strategies: The Role of Formal Insurance in Rural Vietnam*' written by researchers from IPSARD (MARD), CIEM (MPI), and DERG (UoC) (August 2011).
- The paper constitutes an in-depth study written under the Danida Vietnam program, the Agricultural and Rural Development Sector Program Support (ARD-SPS), using data collected by the Vietnam Access to Resources Household Surveys (VARHSs) of 2006, 2008 and 2010.
- The aim of the Policy Brief is not to repeat all of the findings of the aforementioned paper. Rather, it will provide a short summary of the paper and draw policy lessons from some of the major results. The reader is encouraged to read the full paper in advance of reading this Policy Brief.

# Income Shocks and Household Risk-Coping Strategies: The Role of Formal Insurance in Rural Vietnam

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## Background

A fundamental challenge facing rural households in many developing countries is how to maintain levels of consumption in the face of adverse income shocks. Such shocks can affect a household's welfare by negatively impacting on household income, existing household wealth and the health of household members. The Paper upon which this Policy Brief is based (hereafter 'the paper') considers the various strategies that rural households in Vietnam employ to cope with adverse income shocks. Shocks are categorised as either *idiosyncratic* (for example, injury, illness, death, divorce, etc.) that affect an individual household or income earner only, or *spatially covariant* (for example, a flood which affects all households in a particular location) that can affect entire communities. As pointed out in the paper, in many cases the former type of shock can be insurable in formal financial markets, while the latter are generally non-insurable in a formal way due to supply-side constraints.

Using panel data from rural households in Vietnam, the paper explores the impact of adverse income shocks on households based on a subjective measure of risk-coping ability. In addition, there is an investigation of the consumption smoothing ability of households. Finally, the extent to which savings stocks (in the form of liquid assets) are used as a form of self-insurance or risk-coping strategy, and the role that formal insurance plays in reducing the need for self-insurance instruments, is analysed.

The paper finds that a high number of households (42 percent) suffered an adverse income shock between 2004 and 2006, with similarly high percentages between 2006 and 2008, and between 2008 and 2010. In 2008, 13 percent of households suffered an idiosyncratic shock *only* (down from 2006) while 73 percent suffered an exogenous spatially covariant shock *only*- thus providing some support toward the dominance of spatially covariant over idiosyncratic shocks. Indeed, in 2010, spatially covariant shocks also dominate idiosyncratic shocks.

The first overarching result relevant for policymakers is therefore that all types of shock, but especially those types of shock impacting whole communities (rather than just individuals), are prevalent in rural Vietnam and clearly represent an important continued challenge for rural communities. With regard to the more prevalent spatially covariant shocks, these are harder to insure and protect against, implying a form of market failure. Policymakers would do well to take this into account when thinking about rural development strategy. Shocks, by definition, are not expected and are therefore difficult to plan for. Nevertheless, provisions can and should be made such that when they inevitably do occur, authorities can react quickly and efficiently to minimise harm and damage. Here the GoV may consider the construction of centres with warning systems in each province, and setting up mechanisms such that support services (e.g. foods, clothes, cash, other means) can be quickly provided to households in need.

Most shocks cannot be prevented. Ensuring households' ability to cope, after the event, is therefore key. In 2006, 60 percent of households report that they fully recovered from the income shocks they experienced, compared with 45 percent and 53 percent in 2008 and 2010, respectively. This is suggestive that households' ability to cope has fallen somewhat over the sample period. Unsurprisingly, the paper finds that recovery is less likely where households experience both spatially covariant and idiosyncratic shocks at the same time.

Income and wealth are strong predictors of the ability of households to recover from the shocks. The greater the level of borrowing of households the less likely they are to recover from a shock, suggesting that indebted households find it more difficult to cope. The problem of households becoming over-indebted (see below regarding credit) should thus be taken seriously by policymakers.

Wealthy households are found to suffer the least from income shocks. Related to this, wealthier households are also more likely to recover from income shocks. Therefore while income shocks are problematic for households in all wealth groups, recovery is more difficult for poorer households. A greater proportion of ethnic minority households are found to suffer from shocks and also experience a greater number of shocks in all years. Both the poor and ethnic minorities also find it more difficult to recover from the shocks suffered. The impact of shocks is therefore not even across socioeconomic groups (or indeed geographic region- see the paper); something that is important for policy to take account of through careful and accurate targeting of support.

The extent of the losses to household income as a result of shocks varies considerably over time. The size of losses fell from 60 percent of income in 2006 to 15 percent of income in 2010. In all cases, however, households in the lowest income group suffered the greatest proportional losses. Natural disasters are the most significant type of shock suffered followed by illness or death of a family member. Poor households again therefore appear to be the most vulnerable, and despite some safety nets in place, continue to suffer the most. Again, careful targeting of protection and state support is therefore necessary.

The paper also examines the consequences of risk on the behaviour of Vietnamese households by considering their ability to recover from adverse income shocks through examining consumption and asset depletion responses. It is found that households in rural Vietnam on the whole successfully manage to smooth

consumption in the face of adverse income shocks and an important mechanism for smoothing consumption is the use of precautionary saving - households deplete their total stock of liquid assets in response to exogenous economic shocks and idiosyncratic insurable shocks. Financial savings, particularly cash and gold held at home, act as important buffers in the face of spatially covariant natural shocks.

It is well-documented that while savings rates are relatively high in (rural) Vietnam, *formal* savings rates are in fact quite low. This is likely to be due, in part, to a lack of opportunity for formal saving in rural areas. Due to high per-unit transactions costs, commercial banks prefer the city, and the outreach of formal financial services to rural areas is therefore low. This is an important area for policy to address (more on this below) as savings in formal bank accounts would help households to better manage their finances. There is also evidence from other studies that people do value illiquidity (i.e. savings in a bank account are less likely to be used for unnecessary ends).

Furthermore, it is found that borrowing is increased when households are faced with idiosyncratic and spatially covariant shocks. Indeed, it appears that rural Vietnamese households resort to increasing their borrowings in times of financial stress. No evidence is found that formal insurance claims, free insurance claims or external transfers help to ease households' debt burden. Disaggregating by wealth group, it is found that the reliance on credit in times of financial hardship is most characteristic of wealthier households who are more likely to have access to credit than poorer households.

Credit is widely available in rural Vietnam, with a large proportion of households having at least one loan from the Vietnam Bank for Social Policy (VBSP) and/or the Vietnam Bank of Agriculture and Rural Development (VBARD). Borrowing in times of stress may represent a good way to access funds you don't have (and urgently

need) today, however the fact that it is the richer households who are more likely to use a credit to cope implies a need for policy to support the 'credit constrained' poor- especially in times of 'crisis'. Indeed, the fact that wealthier households successfully use loans to cope with shocks may point to the fact that they have other sources of finance, most likely from the more-demanding commercial banks.

To that end, the procedures for obtaining loans from, for instance, VBSP, could be simplified and sped up in crisis times to support specifically the poor who may not have access to other forms of finance (e.g. easing of selection criteria, establishing special form of loan called 'emergency loan'). This should however be conducted with caution, given high rates of indebtedness among Vietnamese rural households and the corresponding results from the paper highlighted above.

In addition, the importance of private transfers, in the form of remittances from family and friends living in urban areas or abroad should be taken into account. It is well known that such financial flows represent a significant source of finance for many rural communities in Vietnam. As such, any measures that might facilitate the flow of these funds (e.g. reduce time delays and charges) should be encouraged. Indeed there are cases of time delays and bank charges, and these vary depending on the specific bank in question. Thus far the GoV has taken some steps to encourage the facilitation of the flow of these transfers, but of course more can always be done.

In general, the findings in the paper provide evidence for the importance of savings and insurance instruments for the ability of households to consumption smooth where income risks prevail. But it is possible that savings for precautionary purposes may lead to lower welfare outcomes in the long run given that they result in lower levels of consumption and use up resources that could be put to more productive uses. This is exacerbated by

the fact that the uncertainty associated with income shocks may lead households to save excessively in these forms. While the results from the paper suggest that the presence of free insurance instruments reduces the need to draw down some forms of precautionary savings in the event of adverse income shocks, there is strong evidence to suggest that insurance markets do not fully cover idiosyncratic risks.

With the current huge amount of cash and gold saving for self-protection to cope with shocks, as shown in the results, there is a need for a solution to use these assets to invest more effectively as well as protect households from risk. One possible solution is for the community to provide an investment organization/fund, to stand to collect money for these funds, and to invest and pay interest to households, thus ensuring security of their capital.

Disaggregating total savings into its various components also reveals some interesting findings, particularly for cash/gold held at home (i.e. informal savings). Both natural disasters and idiosyncratic insurable shocks deplete households' stock of cash/gold held at home. As for the total stock of saving, transfers feature significantly as a risk-coping mechanism in the face of natural disasters although there is still a shortfall in terms of financial loss for the household. Free insurance claims are also important in easing the depletion of cash/gold in the face of idiosyncratic insurable shocks but the same effect for purchased insurance is not found. The complementarity between purchased insurance and savings instruments suggests that insurance markets may be incomplete.

There is a clear need to increase the take-up of formal insurance products by Vietnamese rural households. But within this rather general recommendation, it is necessary to consider the characteristics of who has and does not have insurance at present. The results from the paper suggest that the probability of a household holding formal insurance is correlated with the education level of

the household head, household wealth and income, as well as ethnicity. The level of savings of the household, for instance, is highly correlated with the likelihood of purchase of insurance in 2006. Overall, the consistency over the years of the correlation between insurance and education, wealth, income and ethnicity, suggests that information or financial constraints may exclude some households from insurance markets. This has important implications for policymakers as they look to increase the outreach of formal insurance to rural Vietnam.

The Prime Minister issued Decision 315/QD-TTg of pilot agricultural insurance in 20 provinces and cities across the country from 7.1.2011 to promote the development of agricultural insurance market through the support of 60 percent of the premiums for households, and 20 percent for the organization of production agriculture. In particular, the poor and near poor households receive support to 80 percent and 100 percent. Beside financial support, the GoV may consider programs/activities propagating, explaining in details about insurance products to households in remote areas.

Within this, education and information are of particular importance. As with other countries, there is evidence that Vietnamese rural communities are unprepared to pay insurance premiums, despite the fact that they are likely to suffer from an adverse shock. This may be due to a high discount rate placed on the future (i.e. they value today more than tomorrow), or it may be due to a lack of understanding (sometimes becoming scepticism) regarding how the insurance product actually works.

The paper finds that households with above median liquid assets smooth consumption when faced with idiosyncratic shocks. Coupled with the findings for insurance, this suggests that both purchased insurance and precautionary saving serve as a buffer against unexpected income losses. A similar result emerges for income, suggesting that even when the level of income is controlled for, households earning higher incomes manage to smooth consumption in the face of income shocks to a greater extent than those on lower income levels. This suggests that the poorest households remain

the most vulnerable to risk and as before implies a clear need for a carefully targeted policy response.

Government support to help individuals and communities cope with risks is provided through various social protection policies. These policies cover three circles: the outer circle includes measures for capacity building in risk mitigation and the reduction of vulnerability such as vocational training, career orientation, agriculture extension, and support for poverty reduction, etc; the next inner circle includes prevention and mitigation measures through insurance mechanisms including social insurance, medical insurance and others; the innermost circle includes protection measures through direct social support extended to those affected by risks through Decree 67/CP, and covers shocks relating to natural disasters and diseases.

Vietnam's public safety net covers a broad range of areas, including social protection, hunger eradication, poverty reduction, social insurance, health insurance, and employment and unemployment services. Initiatives are also carried out to assist elderly people living alone, children in especially difficult circumstances, disabled people, victims of natural calamities, and periodically starving people. In principle, this safety net is designed by the government to help social beneficiaries, especially those in vulnerable groups, with below minimum standards of living. In practice, however, their effectiveness is unclear as they tend to be poorly funded and largely reliant on scarce local resources. For example, in 1999 almost one million people were eligible for such assistance but only 20 percent of them actually received an allowance (MoLISA 1999b). Pensions and other employment-related social insurance payments are provided only to workers in the formal sector.

Free state-provided insurance is of greater benefit to the middle wealth group but does also act as a buffer for some poor households. There is a clear need for government to ensure that social safety nets protect the most vulnerable in society. The interaction between free

insurance claims and idiosyncratic insurable shocks has positive and significant effects indicating that while households that suffer these shocks deplete their liquid asset savings those that receive free insurance transfers do so to a less of an extent. This suggests that government safety nets play some role in supporting households that are exposed to shocks of this kind.

The paper also finds that households that experience a natural shock, such as a weather related incident, appear to have fewer problems recovering. This suggests that coping mechanisms for households that experience spatially covariant shocks may be better developed than those for other types of shocks. It may be the case that external factors (for example, government transfers) help to alleviate the adverse impacts of natural shocks given that they impact on whole communities rather than just individuals. At the same time, natural shocks are found to lead to a significant depletion of savings by households. However, when transfers are interacted with natural shocks in the paper's econometric models, those households in receipt of transfers are found to deplete their savings to a lesser extent. This provides some evidence regarding the importance of external transfers in times of natural disaster, notwithstanding that the magnitude of this assistance appears not to fully compensate for the total financial loss incurred.

It is important to note here that while government transfers help households to overcome the damage associated with natural disasters, this does come at a substantial cost to the state. Few households have access to agricultural insurance to protect against losses due to natural shocks and there is, therefore, significant scope for the development of agricultural insurance products in order to reduce the variability in income for farmers living in vulnerable areas, and to reduce the cost of government support schemes for these households.

This is well-recognised in Vietnam: In July 2011, the Vietnamese government introduced a pilot agricultural

insurance product in 20 provinces and cities across Vietnam. This programme aims to promote the development of the agricultural insurance market by supporting 60 percent of the premiums for households and 20 percent for organisations involved in agricultural production. Moreover, poor households will receive support of between 80 and 100 percent of premiums.

Incentivizing the take-up of agricultural insurance is an important step forward, however, many obstacles remain. For example, agricultural insurance is associated with very high-risks and difficulties in calculating the types of risks that can be insured, monitoring the incidence of insured events and calculating claims, represent significant barriers. Moreover, despite heavy subsidisation of the insurance premiums, farmers remain in general reluctant to pay today to cover potential risks tomorrow (see above).

Finally, policymakers have an important role to play in creating the legal transparency and competitive environment necessary for private insurance companies to provide agricultural insurance – in particular in rural areas where per unit transactions costs for financial service providers are high. Close coordination between insurance companies, credit institutions and farmer's organisations will facilitate this process. It is also important that agricultural insurance schemes are directed toward the mitigation of risk for farmers rather than toward achieving social goals directly. If the market operates effectively, then it will lead to less variability in income for those farmers affected, more profitable outcomes and reductions in poverty. In the interim, however, the support programs currently in place play an important role in helping households to cope. It is important that these support programs are maintained and reorganised in a way that they reach the most vulnerable. Incentivising commercial financial service providers to locate branches in rural areas is important here.



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