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“Development on the margin”

Are Risk Preferences Consistent Across Assessment Methods? A Comparison of hypothetical and Non-hypothetical Measures

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Abstract

Although risk preferences have been examined in numerous studies, there still exists a knowledge gap on the accuracy of different methods to empirically assess risk preferences as well as the validity and consistency across methods. We analyze the validity and consistency of risk preferences assessed from hypothetical and non-hypothetical methods for people engaged in agricultural activities in a marginal upland area of northwestern Vietnam. The non-hypothetical method utilizes Holt and Laury lottery-choice task decisions with actual payouts ranging from €0.07 to €2.64, equivalent to approximately 11 % and 432 % of the average per capita daily expenditure, respectively. The hypothetical methods include lotteries of yield and price risk for maize and rice, the U.S. Federal Reserve Board's Survey of Consumer Finances risk-tolerance question, self-assessment questions eliciting the level of risk aversion, as well as scenarios about changing the household's sole income earning activity and selling an inheritance. In addition, respondents were asked what they considered to be risky non-agricultural investment and agricultural investment decisions. The consistency of risk preferences across methods is analyzed with cross-tabulation and correlation analysis. Using principle component analysis, an index based on the different methods to assess risk preferences is created, offering researchers an alternative to assessing risk preferences by means of one method only. Data were collected in a random sample of 300 households in April and May of 2011 which is representative for the mountainous Yen Chau District, Son La Province. Nearly all households in this marginal environment are engaged in agricultural activities. Data on risk preferences were collected for the household head and spouse separately, allowing for a comparison of risk preferences within households as well as by gender. Moreover, differences in risk preferences between poor and non-poor households (based both on an absolute poverty line and a continuous relative poverty index) and ethnic groups living in areas of varying agro-ecological and infrastructural conditions are examined.

Keywords: Consistency, lottery choice task decisions, principle component analysis, risk preferences, Vietnam