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## Microinsurance Decisions: Evidence from Bangladesh

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### Abstract

This paper draws from a field research experiment on gendered aspects of willingness to pay for index-based insurance in Bangladesh. These field experiments were designed to understand gender differences in willingness to pay for index based index insurance. Participants were presented with risky lotteries and a specific insurance contract and were asked to choose how much (if any) of the insurance they want to buy at a given price. The probability structure (whether the risk is catastrophic or moderate and whether there is high or low basis risk) was varied within sessions. The price of insurance was varied across sessions. Each participant was also administered a short questionnaire which collected information on demographic characteristics, risk preferences, agricultural risks, knowledge of insurance products and asset ownership. In this paper we do structural as well as regression analysis. The structural analysis shows that, in line with theoretical predictions, demand for actuarially subsidised index insurance products is decreasing in both risk aversion and wealth, suggesting that index insurance premium subsidies are likely to be captured by the wealthy. When offered actuarially unfair index insurance we find that over 50% of participants purchased more than the rational (DARA EUT) upper bound in at least one decision problem. When our structural model is extended to allow probability weighting, we find evidence that women underestimate extreme events to a greater extent than men do. Regression analysis reveals that there are no significant differences between men and women on whether they purchase insurance and in the number of units purchased. Women, however, are more risk averse compared to men. On average, the more educated individuals and those who had bought insurance in the past, were more likely to buy more units of insurance. The former effect was driven by men and the latter by women. Having a bank account is positively correlated with insurance purchase. Comparing demand for insurance across high and low probability events the findings suggest that when insurance is actuarially unfairly priced then demand for insurance for the low probability event is higher than the high probability event.

**Keywords:** Bangladesh, field experiment, gender, index insurance