

Effect of risk aversion and risk perception on Insurance demand

Most of theoretical insurance models incorporate risk perception and risk aversion as two main determinants of insurance demand in addition to the price offered on the market. Obviously, risk perception and risk aversion are private information, and insurance companies cannot measure directly the effect of these behavioral aspects on insurance demand at individual level.

The objective of our in-progress research work is to understand how and to what extent risk perception and risk aversion modify insurance demand. While many studies have already explored this issue in the lab, we attempted to go one step further and to study both insurance decisions in the lab and real insurance choices.

To achieve this goal, we conducted an experiment with 251 customers of a European car insurance company. The experiment had three main steps: in the first one, subjects were asked to provide their assessment of the likelihood of having claims (glass, theft and fire, natural catastrophes and damages). In the second step, risk aversion was measured in the gain and in the loss domains, according to Holt and Laury (2002). In the last step, we submitted many insurance choice questions to the subjects in order to analyze how individuals behave in the lab, and to what extent this behavior is consistent with real insurance decisions. Financial incentives (23€ in average) were used in order to improve the answer's quality.

The experiment was conducted online by a polling institute on behalf of our laboratory. Two samples were formed: as already mentioned one sample was composed of subjects chosen among our partner's customers, while the second sample was composed of subjects chosen among the members of the polling institute's panel.

For the first sample, the behavioral data collected during the experiment is combined with real insurance choices (coverage level), the insurer's price for each coverage level, as well as other customers' characteristics. Thanks to the behavioral data collected during the experiment, we are able to study the correlation of risk preferences and risk perception with both experimental insurance choices and real insurance choices.

In some ways, our methodology is similar to some papers that analyze health and life insurance demand using the data available from The Health and Retirement Study (HRS) in the United States (see for instance Hurd and McGarry (2002), Finkelstein and McGarry (2006)).

Our paper will present the main findings of our experiment. In particular, we will focus on the following research questions:

- What are the main determinants of car insurance demand and to what extent risk aversion and subjective probabilities are correlated to high coverage level?
- Do policyholders share the same evaluation of risks as the insurance company?
- To what extent experimental insurance choices are consistent with real insurance choices?

The analysis of our data is in progress. The paper will contain an in-depth analysis of customers' behavior and the relationship between insurance choices, risk aversion and risk perception.

References

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