swiss:finance:institute

An Individual-Level Analysis of Financial Decision-Making: Evidence from Real-World Gambling Decisions

Prof. Angie Andrikogiannopoulou, University of Geneva (Principal Investigator)

Individual risk preferences play a central role in many areas of economics and finance. While several studies use experimental or field data to measure individual attitudes towards risk in static choice situations, there is little evidence on how people think about sequences of gains and losses in dynamic settings. This is particularly important in view of a large theoretical literature in finance, which proposes that time-varying risk preferences can explain well-documented asset-pricing irregularities, such as the equity premium puzzle, or portfolio puzzles, such as the disposition effect. In this study, we examine the dynamics of individual risk-taking behavior using a unique dataset that contains the complete betting histories of hundreds of customers of an online sports betting agency over the past 5 years.

Sports betting markets share significant similarities with financial markets both in terms of their operation and in terms of the mentality of some of their participants. For instance, it is often argued that stock traders, similarly to casino gamblers, are often driven by the thrill of chasing higher returns, and are seeking to force another winning trade after winning a trade, or to quickly recoup their losses after losing a trade. At the same time, contrary to other financial decisions, betting choices have two attractive features that allow us to represent them fairly accurately as lotteries: First, bets have an observable payoff at the conclusion of the relevant sporting event, and second, the probabilities implied by the quoted prices are a good approximation for people's subjective probabilities regarding these payoffs. For these reasons, sports betting constitutes an idealized test bed for a structural elicitation of the dynamics of financial decision-making.

In this study we plan to use our rich, real-life data to estimate a structural econometric model that allows risk preferences to change over time and depend on various state variables, such as the outcomes of previous bets, changes in macroeconomic conditions (e.g. due to the recent financial crisis), and changes in individuals' outside wealth. This model will enable us to examine whether risk preferences are indeed time-varying, to identify the causes of such time variation, as well as to estimate the extent of heterogeneity across individuals with different demographic characteristics.

Research Team

Senior Researchers:
Prof. Angie Andrikogiannopoulou, University of Geneva (Principal Investigator)

Associated Participants:
Prof. Filippos Papakonstantinou, Imperial College London

Fields of Research

Experimental and Behavioral Finance
Other topics in Financial Economics