Incentives and behavior in markets

Incentives and Behavior in Markets – Summary
Leonard Wolk

Incentives shape behavior throughout society and are used to align interests between different market participants. By designing proper contracts or setting up market institutions to induce a certain behavior, operators of markets can steer participants' behavior. Evidence shows that it is not enough to design incentives in order to create well-functioning markets but we also need to study market participants' behavior in order to understand how markets function. In this dissertation, we therefore ask the following questions: How do incentives affect behavior? How is behavior shaped over time? and how do external factors, independent of incentives, affect market behavior? To answer these questions, we present four empirical studies which are summarized below. The first and last study of the dissertation deals primarily with incentives, whereas the second and third study investigates auction participants' behavior.

The first study, chapter two, studies the effects of charity characteristics and underlying incentives on their cost-effectiveness using a panel of UK charities. Specifically, we study how the funding structure, representing the underlying structure of incentives, influences a charity's fundraising behavior. We disentangle the different types of funds and identify them as either restricted or unrestricted. Unrestricted funds can be spent freely by the charity, in contrast to restricted funds, which can only be spent on projects that fulfill specific requirements. If funds are largely restricted in their use, it is unlikely that the charity can spend the funds on risky projects or on projects to their own benefit. With this insight in mind we study the decision of a potential donor of both investing time and resources in specifying proper restrictions or donating resources unrestricted to a charity that he believes will spend these resources well.

We show that changes in the funding structure significantly changes charity behavior. This result lends partial support to the existence of asymmetric information between the charity and the donor. This in turn implies that the decision whether or not to restrict funds has important consequences for charity operations. It is crucial to understand these dynamics in order to enhance our understanding of how to efficiently regulate and govern the non-profit industry.

Chapter three looks at individual behavior in internet auctions. Specifically, we study the role of experience in internet art auctions by analyzing repeated bidding by the same bidder in a unique longitudinal field dataset. If experience plays a significant role in shaping bidding behavior, it can have a large impact on the design of auction markets. We find that bidders adapt their bidding strategies over time. Our evidence points toward the possibility for an auctioneer to increase revenues by adapting its focus to attract novice bidders.

Chapter four examines the valuation and hence auction prices for art in London. The value of art is determined, on the one hand by its future resale value and, on the other hand, by the emotional utility derived from owning the object. For art traded at an auction both components play important roles. Interestingly, these two components have very different characteristics from an auction theory point of view. The investment value will, at any point in time, and for a fixed horizon, be identical for all bidders, even though they have different information about it. This resembles a common value good, where every bidder only receives a noisy signal of the true value of the good. The emotional utility, on the other hand, is strictly personal. The value someone derives from viewing a painting is independent from that of all other bidders. Thus, the emotional value represents a private value good. We proxy for the variation in emotional value using variation in mood arising from changes in the amount of sunshine and rainfall.

Our research suggests that there are important insights from understanding the role of emotions in auctions. The implications of our results are important to art auction participants. By inferring the nature of the good being sold, bidders can make informed judgments about the value that they attach to an item. Our findings highlight the importance of the source of the value attached to an item and its relation to the relative importance of the private and common value components.

In chapter five we study the importance of monetary incentives in prediction markets. Prediction markets enable market based forecasting of future events. With the use of a double auction, public information is absorbed into market prices that directly translate into probabilities of future events occurring. The importance of monetary incentives on the aggregation of the traders' beliefs is not yet well understood. In particular, we study the co-movement between prediction markets based on real- and play-money that were run simultaneously. We exploit the fact that the play-money market was set up to constantly mimic the price of the real-money market and test whether or not, despite the imposed price reversion toward the real-money market, the markets co-move.

We find that 20% of the contract pairs with non-stationary price series do not co-move. This means that for these contracts the play-money market absorbs information from the public systematically differently in comparison to the real-money market. This evidence is significant in the light of the price manipulation scheme set up to synchronize the two markets. For the remaining 80% of the contract pairs, we cannot reject the hypothesis that the price series co-move.