Abstracts

Price Search and Consumption Inequality: Robust, Credible and Valid Inference

(Job Market Paper)

The steady rise in income inequality has attracted much attention in the recent years. However, economics rather advocates to focus on consumption inequality as consumers are generally thought to derive utility from consumption. Using panel data on shopping expenditures from the Nielsen Homescan Dataset, I document that low-income consumers pay lower prices than high-income consumers and that both income groups have comparable food consumption levels. I investigate whether these facts are explained by heterogeneity in price search, the process by which consumers affect their own prices paid by taking advantage of coupons, deals, and price variations across stores. I propose a model where consumers can pay lower prices by shopping more frequently. The impacts of shopping frequency on prices paid depend on the consumer shopping technology. I develop a revealed preference methodology to set identify the shopping technology in a computationally tractable fashion. My approach allows for nonparametric concave preferences, rich heterogeneity, and measurement error in prices. To ensure the validity of the model, I statistically test its assumptions in the data. I show that the data are consistent with the model and that a doubling of shopping frequency decreases prices paid by about 19%. Furthermore, I show that heterogeneity in price search mitigates between-group consumption inequality by almost 15% for a fraction of consumers and creates within-group consumption inequality by the same order of magnitude. My results show that price search is important for understanding consumption inequality but that the gap in prices paid between income groups is due to other factors such as good quality.

Robust Inference on Discount Factors

The exponential discounting model is a predominant tool for analyzing dynamic choice in applied work. Its attractiveness rests in that time preferences are summarized by a single parameter—the discount factor. This allows one to tractably analyze a decision maker's intertemporal choices, which is crucial in a vast range of applications. Accordingly, many studies have tried to recover its key time parameter. However, a common feature in this literature is the specification of the consumer's preferences. This constitutes a potentially important limitation as erroneously specifying preferences may lead to spurious estimates of the discount factor. As such, this paper provides set estimates of individual-specific discount factors by using the concavity of the utility function without relying on parametric assumptions. Furthermore, I develop a novel methodology that allows me to evaluate the sensitivity of discounts factors with respect to measurement error in variables. Contrary to the experimental literature, my methodology is applicable to choices over multidimensional goods. Given observations on prices and demands from a checkout scanner panel data set, I find that accounting for unobserved heterogeneity is important as observable characteristics fail to capture differences in discounting.