

CMD 507

507 - Inverse Demand Systems and the Unit Value Problem: An approach to understanding consumer heterogeneity

Researchers: Timothy Beatty, Hide Mizobuchi - University of British Columbia

Research Summary

The future of demand analysis lies in the study of household rather than aggregate data. Aggregate data hides a wealth of information about the heterogeneity of consumer behavior. Understanding heterogeneity is important because it allows an understanding the differential impacts of policy across the population. However, before disaggregate data can be readily used to analyze policy, a number of technical challenges must be overcome. One of the most pressing of these is the fact that prices in cross-section surveys are not well-identified. In particular, the traditional assumption that consumers are price-takers is untenable. Even in extremely detailed surveys, commodities are sufficiently aggregated that consumers report considerable variation in price for the same good.

This project will use inverse demand systems (see below) to deal with price endogeneity. By leveraging new research in the marketing and recreation demand literature, we will explore price variability to enhance our understanding of consumer heterogeneity. How do households who pay high prices differ from those who pay low prices? The answers to these questions will be informative for understanding the differential effects of food policy on different segments of the Canadian population.

Significance of Research

This project is focused on the development of tools that will directly benefit the analysis of public policy. The future of applied demand analysis lies in analyzing large household level data sets to better inform policy. However with a few exceptions most of the literature on analyzing these data fails to account for the endogeneity of prices. If consumers do indeed choose the price they face, the resulting estimates will be biased and inconsistent. Policy recommendations based upon these models will be wrong. This research aims to provide a set of tools that can be used to consistently estimate demand relationships and therefore consistently analyze Canadian Policy.