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Research Statement

My current research has focused on two distinct areas, the oil refining industry and the market for online drug information. In my job market paper, entitled "Capacity and Utilization Choice in the US Oil Refining Industry," I develop and estimate a new dynamic model of the industry to better understand how shocks to the price of crude oil and capacity disruptions affect downstream prices, refiner profits, and consumer welfare. My second paper will utilize a unique dataset of click-through rates provided by Yahoo! to examine how individuals search for drug information on the internet, particularly how they substitute between organic and sponsored search results.

A limitation that I faced when estimating my model of the oil refining industry was the availability of plant-level data. The Department of Energy is in the process of providing the data and I will make a number of extensions to my model. Specifically, I will model the exit choice of refineries as it has an important effect on the competitive environment. There is also an interesting question about how the vertical structure of the industry affects firm behavior. Namely, do independent refiners, those without an upstream crude oil supplying partner, behave differently than refiners that are part of an integrated oil company?

In my second area of research, I am working with Ginger Jin on the role of the internet search engines in providing drug information to consumers. Search engines operate in a two-sided market between advertisers and consumers, providing information in the form of both organic and sponsored results. One important question is how consumers substitute between these two sources of information, a choice that has important consequences for advertisers, search engines, and even public health officials. A future extension to this research is to analyze search behavior across engines to study the determinants of market size and what causes a user to switch from one search engine to another.

My general research interests are in applied IO and, as is clear from my two current areas of study, I enjoy studying a wide variety of topics within this field. I truly value research and the pursuit of knowledge, particularly the way that empirical estimation can both validate a theoretical model and provide a quantitative assessment of its limitations. I am excited to continue this type of work as I start my career as an economist.