
Research Statement

Hong Lee

My research focuses on three streams in industrial organization: the durable goods secondary market, the economics of digitization, and antitrust economics. I analyze how firms' strategic behaviors shape market outcomes and respond to regulatory change in these contexts, employing natural experiments, structural modeling, and extensive data from administrative, proprietary, and web-scraped sources. My work bridges theory and empirical evidence, offering insights into firm strategies, market structures, and policy implications.

1. Durable Goods Secondary Market

The first stream of my research explores the secondary market for durable goods, exemplified by my job market paper, "When Manufacturers Become Resellers: Impact of Automaker Involvement in Secondary Market on Resale Value." This paper examines how manufacturers of durable goods can strategically engage in secondary markets to enhance resale value. I leverage a natural experiment from a policy change in South Korea, where the repeal of an entry ban allowed automakers to sell used vehicles, a practice previously prohibited. Using Vehicle Identification Number (VIN) level microdata covering new and used vehicles registered from 2017 to 2024, I document how this policy shift alters manufacturers' pricing incentives when transitioning from a single pricing strategy (pricing for new products) to a dual strategy (pricing for both new and used products).

Building on this, I am exploring a related project on depreciation loss, which refers to the reduction in a vehicle's value after an accident, despite repairs. The current guideline of South Korea's car insurance policy requires the offender in a car accident to compensate this depreciation loss based on the victim vehicle's age. My preliminary results reveal, however, that depreciation loss is more significantly influenced by the victim vehicle's mileage rather than its age, suggesting that the current policy may distort compensation amounts. Using data from a year-long web-scraping effort collecting daily transaction records with vehicles' insurance histories, I provide the first empirical analysis addressing this issue, offering data-driven suggestions for policy adjustments. My findings underscore the importance of aligning compensation standards with real-world data to better reflect the true impact of accident on vehicle value losses, ultimately informing policy decisions and correcting market distortions.

2. Economics of Digitization

My second research stream centers on the economics of digitization, particularly the challenges and strategic responses of market entrants in digital platforms. In coauthorship with Rick Harbaugh, a theorist, and Minsoo Park, I am working on the project "From Cold-Start to Warm Reception:

Knowledge Contribution as a Signaling Mechanism,” which addresses the ‘cold-start problem’ faced by new attorneys entering online legal markets. Using proprietary data from the largest legal services platform in South Korea, we explore how attorneys can signal their inherent quality to potential clients by publicly answering legal questions. Our interdisciplinary approach models strategic signaling behavior and empirically validates the theory, showing that public knowledge contributions are particularly effective for high-quality attorneys without pre-existing reputations. This work demonstrates my skills in securing proprietary datasets and my ability to integrate theoretical and empirical analysis, showcasing my capability to work effectively with a theorist on complex market phenomena.

Additionally, I am coauthoring a project with Jeff Prince, my doctoral advisor, and Shane Greenstein, Jeff’s doctoral advisor, titled “Online Consumption Variety Over Time and Across Formats,” which examines how the shift from desktops and laptops to smartphones has altered online consumption patterns. Using data from ComScore, which tracks browser and app usage across tens of thousands of households, we find that while desktop and laptop users increase their consumption variety with more time online, smartphone users exhibit decreased usage variety due to device-specific constraints like screen size, navigation setup, and data pricing structures. The analysis highlights significant heterogeneity in how demographics such as income, age, and ethnicity influence online consumption, suggesting that digital access modes shape consumer choices and competitive dynamics differently.

3. Antitrust Economics

In antitrust economics, my research, “Competitive Effects of Joint Ventures in the U.S. International Airline Industry,” co-authored with Jaehak Lee, Jeffrey Prince, and Daniel Simon, investigates the extent of collusive behavior facilitated by joint ventures compared to other cooperative arrangements, such as antitrust immunity (ATI) and mergers. Using a random-coefficients nested logit demand model to estimate route-level demand of international air travelers, we find that joint ventures, while capable of generating efficiencies similar to mergers, also foster partial collusion, enabling coordinated behavior that raises prices and reduces competition. This research contributes to ongoing policy debates by highlighting the need for nuanced regulation of collaborative agreements, especially when such arrangements blur the lines between competition and cooperation.

In addition to my academic research, I have extensive consulting experience in antitrust litigation, particularly in cases involving bid-rigging and collusion. I have provided economic analysis in several high-profile cases, including court-appointed appraisals by district courts and work with private companies engaged in antitrust litigation. My role involved leading data analysis, applying econometric techniques such as difference-in-difference, forecasting models, and before-and-after methods to measure the economic impact of collusion in public procurement auctions. In a bid-rigging case among water treatment companies, I utilized web-scraping to collect comprehensive data from relevant public and private procurement auctions, estimating overcharges caused by collusion. This hands-on experience deepened my understanding of how collusive behavior manifests in real-world settings and provided valuable insights into the intersection of economic theory and legal standards.