

Research Statement

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I am passionate about exploring interesting questions in industrial organization, law and economics, environmental economics, and sports economics. The theme of my current work is to study strategic interactions between two parties with conflicting interests. I have discovered such interactions in various contexts including the private enforcement against counterfeiting, land acquisition under eminent domain and resistance therein, and offensive basketball players' exploitation of the game's hand-checking rule in order to deter overly aggressive defenders.

Strategic Responses to Moral Hazard

In my job market paper, I provide a decisive answer to an unsettled controversy: whether Chinese law should disallow counterfeit hunters. The hunters are strategic buyers who purposefully buy counterfeits and file claims to exploit China's "overcompensation policy." The Chinese legal authority stipulates this policy that entitles consumers compensation in excess of the transaction price. Using game theory, I found that the optimal policy is to set the compensation to the maximum. Implementing such a policy minimizes the portion of sellers who choose to counterfeit and also minimizes the portion of buyers who hunt counterfeits. Moreover, a higher portion of either counterfeiters or hunters negatively influences social welfare. These findings are consistent with enforcement literature in that public enforcement is preferable to private enforcement and that the government should impose the maximal fine to prevent crimes. My paper suggests that these results also hold in the context of counterfeit hunters. In addition, my work enriches counterfeit literature by including counterfeit hunters, a new form of private enforcers.

In the second paper, I study the strategic behavior of the government when acquiring land. Although the government has to announce an acquisition project in advance, the actual implementation may differ. This wins the government a position to adjust its project, contingent on the household investment, instead of being locked into their preannounced plan. I am curious about whether this is an advantageous strategy for a self-interested government. In addition, the government has to transfer compensation to households following a standard prescribed by a legislature. The other research task is to discover the optimal compensation policy for a benevolent legislature, which aims to optimize social welfare. Using a sequential game model, I find that by taking this strategy, the government loses its first-mover advantage and hence is worse-off. The lump-sum compensation rule is still effective to achieve social optimality.

Another strategy to gain higher profit from public projects is that the government under-compensates. However, reproaches will occur as a consequence. If these reproaches are not well dealt with, they will escalate into resistance. The second half of this paper discusses how the government tradeoff between tolerating resistance in exchange for higher revenue from an under-compensated acquisition. Using Kaldor-Hicks analysis, I find that a benevolent government will fully compensate and allow no resistance while a self-interested government will under-compensate and accept some resistance. I also plan to use empirical evidence to

support this finding. By studying resistance as a strategic response to an under-compensated acquisition, I broaden the eminent domain literature to cover social disobedience, which connects to the study of political science.

I have discovered a similar pattern in basketball competitions. To protect offensive players on the perimeter, especially ball-handlers, from excessively intense defenses, the NBA implemented a “no hand-checking rule.” This rule, however, yields an unexpected consequence: offensive players behave strategically to exploit this rule. By hooking their arms in the defenders’ and making shots, they draw shooting fouls, which are easier to convert into points compared to field throws. I plan to investigate play-by-play data. Comparing perimeter players of different styles, I will test whether this rule causes perimeter defenses to become lax over recent seasons, motivating offensive players to take more long-range shots. This paper will provide statistical evidence to show why all of a sudden, players switch to three-pointers as the major scoring method, and why most teams switch to the “money ball” strategy. I received Eleanor Bloom funding for this research while working at the University of Connecticut.

Other IO Works

Besides the interest in studying the multiple occurrences of the pattern, “strategic responses,” I am also eager to explore IO topics such as quality differentiation, two-sided markets, advertisement, and market segmentation. I integrate some of these topics in a study about YouTube Premium membership as the third paper in my dissertation. Instead of providing free video services in exchange for audiences receiving ads to generate profit, YouTube recently made another option available. That is the membership. By subscribing, the audience can enjoy ad-free services. I am interested in how this mechanism influences YouTube’s profit and its advertisement strategy. Further, I plan to investigate how different market structures influence this second-degree price discrimination. The preliminary result indicates that with this membership mechanism, YouTube will advertise more to exploit their remaining viewers. This research expands the related IO literature by including this newly emerged membership mechanism.

Conclusion

I have a great passion for research and I have the insight to discover good research opportunities, which are often from contemporary policy-relevant phenomena. I am able to transform my creative ideas into solutions of unsettled puzzles which contribute to the studies of human behavior and decision-making. I have already found my interest in counterfeiting, eminent domain, and other topics in industrial organization. Some of them overlap with other disciplines like political science, public policy, law, and sports. I am open to interdisciplinary collaborations and hope to develop strong co-author relationships. I have a successful experience in applying for funding to support some of my research. I am also able to incorporate these interesting research topics into my teaching to inspire future economists.