Bo Bian

Shanghai University of Finance and Economics
College of Business
Office 322
Shanghai, China

Phone: (021) 65906930
Email: bian.bo@mail.shufe.edu.cn
Homepage: http://bobian.weebly.com

Academic Position

Assistant Professor, College of Business, Shanghai University of Finance and Economics, 2018-present

Education

Ph.D. Economics, Pennsylvania State University, August 2018.

M.Phil. Economics, Tilburg University (Cum Laude), the Netherlands, 2012.

B.A. Economics, Nankai University (with honors), China, 2010.

Research Fields

Primary: Industrial Organization

Secondary: Applied Microeconomics, Applied Econometrics

Research Interests

Platform Economics, Antitrust, Pharmaceutical Industry, Transportation Economics

Working Papers

1. **Search Frictions, Network Effects and Spatial Competition: Taxis versus Uber**

   This study models the search and matching process among passengers, taxis, and Uber drivers in New York City to analyze matching efficiency, by taking into account network effects and supply competition. Drivers make dynamic spatial search decisions, while passengers make static choice decisions between taxis and Uber. Network effects arise if demand and supply are interdependent. Network effects would cause a local market-expanding effect, whereas competition has a market-stealing effect. Both effects would change the spatial distribution of supply and demand, which further influences spatial matches and search frictions. I estimate network effects and analyze frictions as spatial mismatches in three counterfactual scenarios: (1) restricting the supply of Uber rides; (2) improving traffic conditions; and (3) eliminating the surge multiplier. The results indicate that competition between taxis and Uber improves matching efficiency. Eliminating the surge multiplier increases mismatches among Uber. Most importantly, ignoring network effects will lead to inaccurate welfare conclusions.

2. **Merger Effects and Downstream Market Structure** (with Zhiqi Chen)

   This paper investigates how the effects of a merger are influenced by the market structure in its downstream market. In our theoretical analysis, we show that both wholesale price and retail passthrough depend on downstream market structure under certain conditions. Furthermore,

we empirically examine the mega-merger of 2008 MillerCoors in the U.S. beer industry. Both the brewer's and retailer's pricing decisions are modeled in a vertically related market framework. With the demand estimates, we uncover the double markups and passthrough in post-merger periods and how they are affected by the local retail concentration. Our results indicate that downstream concentration not only affects the upstream firm exercising market power in wholesale price but also affects the retail passthrough. Therefore, merger analysis without considering the retail sector could be biased.

3. **Consumer Spending under Exclusive Loyalty Programs: Evidence from Gifting in Online Streaming** with Hailin Lu and Xuezhen Tao

   We study how consumers allocate spending across multiple exclusive loyalty programs, where the level upgrading and reward applicability are independent in each program. Using the streaming records of audiences and streamers on Douyu, we analyze how an audience's spending and other activities are affected when her badge level is upgraded. We find that audiences rush gifting near the next badge upgrade, and this spills over to her activities in other streaming rooms. After the upgrades, however, this temporary boost diminishes quickly despite the updated loyalty tier status. We also examine audiences' gifting allocation across streamers and find that (1) audiences' gifting is concentrated towards high-level badges, which have higher upgrading requirements; (2) audiences' activities in non-gifting rooms are also boosted near the major badge upgrade, but in the long run, these activities are substituted when their major badge levels are high enough; (3) audiences' higher budgets are positively correlated with the magnitude of gift rushing.

Works in Progress

1. **The Effectiveness of Influencer Marketing** with Yuxin Chen, Qi Sun and Fang Wu

   Influencer marketing is a major form of social media advertising. It requires a firm to select some online influencers and financially incentivize them to engage their followers by creating content specifically related to the firm's offerings. We attempt to provide insights into this matter by examining the factors affecting influencer marketing effectiveness including both within-influencer and cross-influencer ones. The former factor depends on influencers' characteristics and previous posts, and the latter one depends on her competitors' posts and spillover effects. The effectiveness of influencer marketing requires optimization of overall effects. We use machine learning to analyze the contents of social media and construct focal variables. Our findings would make conceptual and managerial contributions to the influencer marketing field.

2. **The Effects of Entry/Exit on Incumbent Prices in the Chinese Pharmaceutical Industry** with Mark Roberts

   The effects of entry on incumbent price are controversial in theories that the textbook story predicts a price drop, whereas market segmentation explains the possibility of price increase. The finding of price increases in drugs is well-known in the U.S. pharma industry, especially when the incumbent is an originator facing generic entry. We study the entry and exit effects using China's pharma data of various drug product markets. We employ the cross-city variation and apply staggered DID to identify the treatment effects. Our findings align with the literature that the price of foreign incumbent (originator) would increase upon entry and the price of domestic incumbent has a slight decrease. The exit effects are not salient. Since drug entry requires a New Drug Application (NDA) which is observable, we could also study the potential entry effects. Furthermore, our sample periods cover several health reform policies affecting market structure that make policy evaluation possible.

3. **Price Dispersion, Competition, and Brand Preferences in the Chinese Pharmaceutical Industry** with Heng Ju

   We diagnose the price dispersion in the Chinese pharmaceutical industry and analyze the effects of competition. Using detailed purchase order data for various drug markets, defined as molecule presentation, across cities, we document large price dispersion except for monopolized markets. We decompose the price dispersion into within-/cross-manufacturer dispersions using Gini decomposition and find the latter dominates. The price differences not only exist between branded and bioequivalent generic products but also exist among generic ones. Since the Gini coefficient is a quantity-weighted measure, the large dispersion indicates a strong city-level preference for manufacturers. Though we find an inverse-U relationship between price dispersion and competition, the competition effects are limited contrasting to the local brand preferences.

4. **Competition and Responsive Pricing in Electric Vehicle Charging Station Market** with Zheng Xiao

   This paper examines the effect of retailer competition on the allocative efficiency of consumption in the electric vehicle charging station industry. The electricity market applies real-time pricing to shift consumption from peak to off-peak periods for cost-saving purposes or to avoid congestion. However, as a wholesale price, it only varies over time but stays uniform across geographic regions. The retail price in each charging station further depends on the retail markup and competition of the spot market at the location-period level. The retail price becomes less responsive to local demand when the market is competitive. As a result, local competition not only affects the retail price but also affects the consumption allocation across locations and over time. Its overall effects on social welfare and the efficiency of electricity pricing are ambiguous. We empirically estimate the competition effects on retail price and consumption distribution in the electric vehicle charging station industry of Shanghai City.

Conferences

2019 Tokyo Asia-Pacific Industrial Organization Conference

2019 Xiamen China Meeting of the Econnometric Society

2018 Indiana International Industrial Organization Conference

Teaching Experience

Instructor, Econometrics, fall 2019-2023(undergraduate)

Instructor, Intermediate Microeconomics, spring 2019-2024(undergraduate).

Instructor, Advanced Econometrics, fall 2018-2023(graduate).

Social Services

Referee for 经济学(季刊), 经济管理学刊, Review of Industrial Organization, International Studies of Economics

Expert for Economic Testimony in Antitrust Case

Honors & Awards

Research Assistantship, Pennsylvania State University, 2017-2018

Teaching Assistantship, Pennsylvania State University, 2012-2017

Koopmans Scholarship, Tilburg University, 2011

Orange Tulip Scholarship, Tilburg University, 2010

National Scholarship, Nankai University, 2009

First Prize of Excellent Undergraduate Scholarship, Nankai University, 2008

WUMART Scholarship, Nankai University, 2007

Languages & Computer Skills

Language: Mandarin Chinese (native), English (fluent).

Software: Matlab, Stata, Python, LaTeX, MS Office, Scikit-learn, ArcGIS.