### XI XIONG

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#### **NEW YORK UNIVERSITY**

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## **Education**

Ph.D. in Economics, New York University, 2016-2022 (expected)

Thesis Title: Search, Privacy, and Price Dispersion.

M.Phil. in Economics, New York University, 2020

B.S. in Quantitative Finance 1<sup>st</sup> class honors, National University of Singapore, 2010-2014

# References

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## **Research Fields**

Applied Theory, Industrial Organization, Innovation

# **Teaching Experience**

Fall 2021 Intermediate Micro, NYU, TA for Prof. Eric Madsen

Spring 2021 & Spring 2020 Advanced Micro Theory, NYU, TA for Prof. Boyan Jovanovic Fall 2020 & Fall 2019 Industrial Organization I (Ph.D.), NYU, TA for Prof. Boyan

Jovanovic

Econometrics, NYU, TA for Prof. Timothy Roeper Spring 2020 Spring 2018 Analytical Statistics, NYU, TA for Prof. Timothy Roeper Spring 2016

Seminars on Innovation and Productivity, NUS business school,

TA for Prof. Ivan P.L. Png

# **Research Experience and Other Employment**

2018 - 2021New York University, Research Assistant for Boyan Jovanovic

NUS Business School, Research Associate July – August 2017

2014 - 2016NUS Business School, Research Assistant for Ivan P.L. Png and

Junhong Chun

May – July 2013 OCBC bank, Group Risk Management, Credit Risk Analyst

Internship

**Professional Activities** 

October, 2021 NYU Stern Macro Lunch Seminar, Presenter

September, 2021 NYU Student Micro Theory Lunch Seminar, Presenter

April, 2021 EPFL Virtual Innovation Seminar, Presenter Summer, 2017 10<sup>th</sup> Annual Conference on Innovation Economics

(Northwestern), Discussant

Honors, Scholarships, and Fellowships

2016 – 2021 MacCracken Fellowship, New York University

2010 – 2014 NUS Faculty of Science Dean's List

Fall, 2012 UCLA Dean's Honors List

2010 – 2014 Senior Middle 2 Scholarship, Ministry of Education, Singapore

### **Research Papers**

Search, Privacy and Price Dispersion (Job Market Paper)

Consumers' search costs have been declining and yet for most products price dispersion has not fallen. I argue that this is because price discrimination has risen. In my model, sellers receive information from a data broker about consumers' price counts and engage in price discrimination. In equilibrium, sellers charge higher prices to customers that search less. As a result, the range of prices is larger than it would be if sellers did not receive information about their customers' search intensities. Consumers search more intensively if sellers have more precise information about them. This would further increase the range of prices and would lead to lower seller profits and aggregate welfare. Finally, if the data broker charges sellers a fixed fee for receiving the information, the broker prefers sending noisy information even if it has perfect information about consumers' price counts. I further fit the model implied distribution using online textbook prices. The estimates suggest that the information that the broker supplies is more precise for consumers that search more.

Social Value of Patents: Evidence from the U.S. Court of Appeals for the Federal Circuit (With Yun Hou, Ivan P.L. Png)

To encourage invention, society awards inventors exclusive rights through patents. Patent law trades off incentives to invent new technologies against reduced access to already invented technology. However, patent law being national, it is difficult to investigate the trade off without confound by national economic and scientific changes. We exploit a unique quasi-natural experiment which changed patent law subnationally, within the United States. Beginning 1982, the Court of Appeals for the Federal Circuit shifted law in favor of patent owners, to degrees varying geographically by judicial circuit. For businesses in complex technology industries, we find that the CAFC increased costs to users by more than US\$5.6 billion per year, but did not significantly affect the technological quality of patented inventions. Our work contributes to a more nuanced appreciation of socially optimal patent law. Shifting the law in favor of patent owners, a policy to encourage innovation, seemed to increase economic rents without commensurate effect on invention quality.

Strategic Patenting: Empirical Evidence (With Yun Hou, Ivan P.L. Png)

How should businesses adjust strategic patenting to changes in patent law? Theoretically, under particular conditions, if the legal protection of patents is stronger, incumbent businesses would reduce patenting. When the Court of Appeals for the Federal Circuit assumed jurisdiction over patent appeals, it strengthened the legal protection of patents. Importantly, the strengthening varied geographically by judicial circuit. Exploiting these changes as a natural experiment, we find that post-CAFC, patents were more valuable commercially but not technologically superior, businesses reduced patenting, and new entry fell. The reduction in patenting was more pronounced among continuations, larger businesses, and in less concentrated industries.

Patent Law, Appropriability, and External R&D: Empirical Evidence (With Yun Hou, Ivan P.L. Png)

Theoretically, whether technology firms should increase external R&D in response to stronger patent law depends on the effects of law on returns to external and internal R&D. Exploiting geographical differences in the strengthening of patent protection due to the U.S. Court of Appeals for the Federal Circuit, we find that, on average, external R&D increased by 42.3 percent. The effect was more pronounced among companies less intensive in manufacturing, smaller in scope, and in complex-technology and more geographically concentrated industries, and those where patents were less effective in appropriability.

## Work in progress

Platform Order and Consumer Search

Abstract: I study equilibrium price dispersion in a model of consumer search in online market under different ranking mechanisms. If sellers are randomly ranked or ranked according to price, all sellers use the same mixed price strategy in equilibrium. If sellers are ranked according to relevance, more relevant sellers charge higher price in equilibrium. When the platform charges a fixed fee per transaction to seller, the equilibrium prices increase for all ranking mechanisms. Numerical example on welfare analysis shows ranking by price yields lowest equilibrium price and highest consumer welfare and platform profit. Search costs and seller's relevance affect the extensive search margin and intensive search margin. Lowering search costs or increasing average seller's relevance has different impacts on equilibrium price for random ranking and ranking by price.

#### **Data**

Location of U.S. Manufacturing, 1987-2014: A New Dataset (with Ivan P.L.Png)