# Hui Liu

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Website: https://sites.google.com/view/hui-liu

Citizenship: Chinese, Permanent Resident of Canada

Research Interests: Industrial Organization, Applied Microeconomics, Econometrics

#### **EDUCATION**

Ph.D. in Economics, University of Toronto

2022 (Expected)

Committee: Yao Luo (supervisor), Loren Brandt, Victor Aguirregabiria

M.A in Economics, University of Toronto

2014

B.Comm in Accounting (Major in Economics), University of Toronto 2013

#### Research

Demand Estimation With Foldable Menu: A Case Study of China's Tobacco Industry (Job Market Paper)

The effects of the Non-Resident Speculation Tax on Toronto Housing Markets (2nd Year Paper)

## AWARDS AND GRANTS

University of Toronto Doctoral Fellowship ( $\$12,000 \times 5$ ) 2014 - 2019 Royal Bank Graduate Fellowships In Public And Economic Policy (\$10,000) 2019

## Professional Experience

Teaching Assistant 2013 - present

- ECO 100: Introduction to Economics
- ECO 204: Microeconomics for Commerce
- ECO 220: Quantitative Analysis
- ECO 316: Applied Game Theory
- ECO 375: Applied Econometrics I
- ECO 436: Measuring Wellbeing

Research Assistant 2014 - present

• Yao Luo: Coding for structural model estimation and advanced data analysis

• Loren Brandt: Data preparation and numerical analysis

#### Conference Presentations

Industrial Organization Seminar, University of Toronto	2021
Business Economics Seminar, University of Toronto	2021
Empirical Microeconomics Brown Bag, University of Toronto	2017

### LANGUAGES

English, Mandarin (native)

Programming: MATLAB, Stata, ArcGIS

#### REFERENCES

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#### Abstracts

## Demand Estimation With Foldable Menu: A Case Study of China's Tobacco Industry

(Job Market Paper)

Information about product availabilities is necessary for the demand estimation of products with varying availabilities, but such data is not always observable. When firms endogenously choose product assortments to maximize expected profit, we can recover unobservable product availabilities from firms' profit maximization conditions. Searching for optimal assortment can be very time-consuming because the total number of assortments increases exponentially with the number of products. I show firms only need to choose from a foldable menu, wherein the number of assortments equals the number of products. I provide an empirical application of the foldable menu model on China's tobacco industry. My results show that ignoring varying product availabilities leads to underestimated price elasticity (0.38 vs. 1.2) and thus false tax policy implications. Making all cigarettes available has positive effects on consumer welfare (+6.75%) and cigarette sales (+12.11%) but negatively affects wholesale profits (-5.95%).

<sup>&</sup>lt;sup>1</sup>Optimal assortment is the assortment that maximizes firm expected profit.