

# HWIKOOK CHOE

D.O.B.: October 7th 1991  
5757 S University Ave, Chicago, IL 60637  
<https://github.com/hwikookchoe>

## EXPERIENCE

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### **Ph.D Candidate in Economics**

August 2017 - Present

*The University of Chicago*

- Focus on
  - Industrial organization
  - Quantitative marketing
  - Econometrics
  - Causal inference

### **Graduate Research Assistant**

September 2018 - June 2019

*The University of Chicago Booth School of Business*

- Topic of Quantitative marketing.
- Data engineering, including scrapping raw data and connecting scrapped data to different relational data

### **Graduate Research Assistant**

March 2016 - February 2017

*Brain Korea 21 Plus, Korea University*

- Topic of Industrial organization.
- Built theoretical model for merger analysis and performed simulation of hypothetical merger

## EDUCATION

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### **University of Chicago**

*September 2017 - Present*

Ph.D Candidate (All But Dissertation) in Economics  
M.A. in Economics  
(STEM-eligible)

### **Korea University**

*March 2016 - June 2017*

Master's Program in Economics

### **Korea University**

*March 2010 - February 2016*

Bachelor of Economics

Bachelor Science in Mathematics (Double major)

## WORKING PAPER

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### **Understanding Forward-Looking Behavior using Dynamic Discrete Choice and Rational Addiction Model: Application to California Cigarette Tax Increase**

Consumer's forward-looking behavior can create change in current purchase and consumption in response to the change in expectation on future price. Using cigarette tax increase in California as exogenous variation, I found peak in purchase right before the actual price increase and plunge after the increase. Using dynamic discrete choice model with rational addiction and stockpiling, I found that change in the timing of tax increase announcement can incur change in consumer's steady state of consumption in the long run.

## WORK IN PROGRESS

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### Competition between First-party and Third-party Sellers on Online Platforms

Online platforms are two-sided markets which match two different sides of agents: buyers and sellers and earn profits by matching them. However, recent platforms sell their own goods or services that directly competes with the sellers on the platform. Whether increasing profit by selling first-party products and competing with third-party sellers on the platform is questionable. By using online bookstore data, I investigate the consumers choice on first-party and third-party sellers.

## TECHNICAL STRENGTHS

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### Statistical Modeling

- Econometrics (Advanced)
  - regression based analysis
  - structural equation modeling
- Machine Learning (Advanced)
  - decision tree, random forest, boosting (LightGBM)

### Programming

- Python (Advanced)
  - numpy, pandas, scipy, scikit-learn, statsmodels, Tensorflow, matplotlib
  - able to create custom packages (Synthetic Control)
- SQL (Intermediate)
- Tableau (Intermediate)

### Language

- English (Fluent)
- Korean (Native)

## GRANTS AND SCHOLARSHIPS

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<b>Frank H. Knight Fellowship and the J. Lawrence Laughlin Fellowship</b> Department Dissertation Fellowship Award	<i>2022 - 2023</i>
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<b>Doctoral Study Abroad Scholarship</b> Korea Foundation for Advanced Studies	<i>2017 - 2022</i>
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<b>Brain Korea 21 Plus</b> Korea University	<i>2016 - 2017</i>
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