Chao Wang

Economics Ph.D. Candidate

CONTACT INFORMATION

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EDUCATION

Indiana University, Bloomington | Ph.D in Economics (STEM)   2018-2024 (expected)
Fields: Empirical Industrial Organization, Applied Econometrics, Applied Microeconomics

Xi'an Jiaotong University (China) | MA in Economics   2016-2018

Xi'an Jiaotong University (China) | BA in Economics   2012-2016

RESEARCH FIELDS

Primary field: Industrial Organization

Secondary fields: Applied Microeconomics; Applied Microeconometrics.

WORKING PAPERS

"Endowment Heterogeneity in Preference for Electric Vehicle" (Job Market Paper)

<Abstract> I study the impact of household heterogeneity in vehicle endowments on household vehicle purchase decision, and how this heterogeneity would affect the policy design in electric vehicle (EV) market. Using sales data as well as household vehicle survey, I quantify the household preference heterogeneity in vehicle endowment with random coefficient discrete choice model. I find that households endowed no vehicle prefer to buy EV more than households endowed with vehicles, and households endowed with EV prefer to buy an EV than households endowed with only gasoline vehicles (GV). Keeping everything else equal, households endowed with only GV with annual income of 100K USD need 13,337 USD to choose EV rather than GV. I experiment different subsidy policies and I find that EV sales can increase by 8% without raising subsidy expenditure, but at the cost of consumer surplus loss.

"Identification of Dynamic Discrete Choice Models with Hyperbolic Discounting Using a Terminating Action" with Ruli Xiao and Stefan Weiergraeber

<Abstract> We study the identification of dynamic discrete choice models with hyperbolic discounting using a terminating action. We provide novel identification results for both sophisticated and naive agents' discount factors and their utilities in a finite horizon framework under the assumption of a stationary flow utility. In contrast to existing identification strategies we do not require to observe the final period for the sophisticated agent. Moreover, we avoid normalizing the flow utility of a reference action for both the sophisticated and the naive agent. We propose two simple estimators and show that they perform well in simulations.

"Identification of hyperbolic discount factor in dynamic discrete choice model with multiple terminating actions"

<Abstract> This paper studies identification of quasi-hyperbolic discount dynamic discrete choice models in both finite and infinite horizons, exploring the unique features of the presence of multiple terminating actions. Under economically meaningful exclusion restrictions, the identification of discount factors is characterized by polynomial moment conditions. The presence of multiple terminating actions greatly reduces the complication of the identification and also helps relax the restrictions imposed on the flow utility function. This paper also examines the impact of estimating the 'underlying' hyperbolic discounting model as the prevalent exponential discount model. I find that such misspecification could lead to misleading policy implications.

WORKING IN PROGRESS

"New Technology, Environmental Impact and Time Preference: Evidence from Electric Vehicle Adoption"

"Who Benefits from EV Subsidies - The Role of Vertical Relationships and Price Discrimination"

SELECTED CONFERENCE PRESENTATIONS

"Portfolio Considerations in Automobile Purchases: EV versus Gasoline?", Midwest Econometrics Group Annual Conference 2022, Missouri Valley Economic Association 2022.

"Identification of Dynamic Discrete Choice Models with Hyperbolic Discounting Using a Terminating Action", The 16th International Symposium on Econometric Theory and Applications: SETA 2022 (Online), The Institute for Advanced Economic Research (IAER) (Online) 2022.

"Identification of hyperbolic discount factor in dynamic discrete choice model with multiple terminating actions", Hoosier Economics Conference at Indiana University (Virtual) 2021.

OTHER RESEARCH EXPERIENCE

Research Assistant for Ruli Xiao, Department of Economics, Indiana University	Summer 2023 - Present

TEACHING EXPERIENCE

Associate Instructor (Full Teaching Load):

· ECON-B 251 Fundamentals of Economics for Business I (Micro)	Fall 2021
· ECON-E 251 Fundamentals of Economics I (Micro)	Fall 2020

Teaching Assistant:

· ECON-E 521 Theory of Price and Markets I (PhD level)	Fall 2022
· ECON-E 305 Money and Banking	Summer 2022
· ECON-E 251 Fundamentals of Economics I (Micro)	Summer 2022
· ECON-E 370 Statistical Analysis for Business and Economics	Spring 2022
· ECON-E 252 Fundamentals of Economics II (Macro)	Summer 2021
· ECON-E 322 Intermediate Macroeconomics Theory	Summer 2021
· ECON-B 251 Fundamentals of Economics for Business I (Micro)	Spring 2021
· ECON-E 327 Game Theory	Spring 2019
· ECON-E 201 Intro to Microeconomics	Summer 2020 & Spring 2020 & Fall 2019 & Fall 2018

HONORS AND AWARDS

Lloyd Orr Dissertation Fellowship, *Indiana University*	2023
Travel Award, *IU College of Arts and Sciences*	2022 - 2023
Doctoral Assistantship, *Indiana University*	2018 - 2023
Top-up Fellowship, *Indiana University*	2018

SKILLS

Languages: English (Fluent), Mandarin Chinese (Native)

Computer: Matlab, R, Python, Stata, Fortran

REFERENCES

Ruli Xiao, Associate Professor (Ph.D. advisor)
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