Qifan Han

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EDUCATION

Boston University Anticipated June 2025
PhD in Economics

London School of Economics 2019
Msc. Econometrics and Mathematical Economics

Columbia University 2018
M.A. in Quantitative Methods in the Social Sciences

Fudan University 2016
B.A. in International Politics

JOB MARKET PAPER

"The Impact of Banning Online Gambling Livestreams: Evidence from Twitch.tv"
with Jasmine Yang and Andrey Simonov

WORKING PAPERS

"Collaboration Among Content Creators"
with Jasmine Yang and Jerath Kinshuk

"Impulse Response Inferences With Existence of Repeated Roots"

WORKING IN PROGRESS

"Partial Identification Under Multiple Nest Structures"

"Optimal Achievement System Design on Video Game Platforms"

RESEARCH ABSTRACTS

"The Impact of Banning Online Gambling Livestreams: Evidence from Twitch.tv"

with Jasmine Yang and Andrey Simonov

Abstract: The rise of livestreams featuring online gambling content has raised concerns over development of addictive behaviors and deceptive practices by streamers, prompting calls for platform regulation. We study the effect of a policy ban on streaming of gambling sites lacking U.S. license or sufficient consumer protection by Twitch on October 18, 2022, by compiling a novel high-frequency dataset on top 6000 streamers. Using video analysis, high-frequency stream title and in-stream chats, we identify streamers' treatment assignments. To address identification challenges in the quasi-experimental design, we employ three estimators: two-way fixed effects DiD, Synthetic DiD and doubly-robust estimator of group-time average effects. On the supply side, we find that the ban led to a 58% reduction in weekly streams of gambling content from streamers affected by the ban, and a 12% reduction in weekly streams of unbanned gambling content. On the demand side, we find that streamers whose content were banned experienced more than 75% reduction in weekly hours watched, along with significant drops in income including donations and subscriptions. These impacts were not symmetric across the platform - more popular streamers were more heavily affected by the policy. We find no evidence that streamers substituted banned gambling content with

video games featuring gambling-like elements, alleviating concerns that such content might foster gambling addiction among teenage viewers.

"Collaboration Among Content Creators" with Jasmine Yang and Jerath Kinshuk

Abstract: We study content collaboration in the creator economy, in which competing creators mutually agree to collaborate on joint content and negotiate on content production and revenue sharing. Using a game theory model with creators competing for consumers on a Hotelling line, we show that collaboration allows creators to use the jointly-produced content to moderate competition, while using their individual content to expand into new audiences. This increases content diversity but also leads to increased monetizability of content. In general, collaboration among creators has an effect of increasing the profits of creators while reducing consumer surplus. When creators create content with heterogeneous entertainment values, the creator producing content of lower entertainment value has an incentive to free ride on the collaborative content. This free riding may increase surplus for consumers (who without collaboration would watch content of low entertainment value), thereby improving creators' profits as well as consumer surplus. Our results provide guidance to content creators, to platforms designing tools to facilitate collaborations, and to policy makers.

"Impulse Response Inferences With Existence of Repeated Roots"

Abstract: Vector Autoregression (VAR) and Local Projection (LP) are two popular methods of estimating the impulse response functions (IRFs) and conducting inferences in macroeconomic studies. However, it remains unclear which one should be a better choice in empirical practices. This paper extends existing works on the comparison between Vector Autoregression and Local Projection methods, by considering inferences when the data generating processes involve repeated roots. I show that the autoregressive estimation of impulse response functions will converge to a special type of real-valued random variable, resulting in conservativeness of the widely-used bootstrap Efron confidence interval, even when the roots are away from the unit circle. This property of conservativeness becomes even more severe in the following cases: 1) when the time series is highly persistent; and 2) when the researcher is interested in impulse response functions at intermediate or long horizons. The theoretical results are supported by Monte Carlo simulations with different values of roots in a variety of model specifications, including AR(2), AR(3) and VAR(1).

"Partial Identification Under Multiple Nest Structures"

Abstract: Nested logit model is one of the most widely applied tools in discrete choice analysis, due to its ability to capture rich substitution patterns in market data. However, the researcher needs to define a nest structure ex ante, as the chosen nest is usually based on prior knowledge of the market and will be applied to all individuals. This paper discusses the identification of individual preferences, while relaxing this unique nest structure assumption and allowing for heterogeneity in individuals' recognition of the nest structures in the same market. I characterize the sharp identification region of parameters in the nested logit model, based on the coexistence of a given set of nest structures. I show in a series of Monte Carlo simulations that misspecification of the nest structure may result in the identification region not covering the true parameter, whereas the identification region solves the misspecification problem and partially identifies the parameters by allowing for multiple nest structures.

RESEARCH EXPERIENCE

Research Assistant for Hiroaki Kaido, Boston University	2022, 2023
Research Assistant for José Montiel Olea, Columbia University	2018, 2020

RESEARCH PRESENTATIONS (* denotes presented by coauthor)

"The Impact of Banning Online Gambling Livestreams: Evidence from Twitch.tv"

Interative Marketing Research Conference	May 2024
Boston University Econometrics Seminar	May 2024
Boston University Applied Microeconomics Workshop	March 2024

"Collaboration Among Content Creators"

China India Insights Conference	September 2023
Marketing and the Creator Economy Conference*	November 2023
45th ISMS Marketing Science Conference*	June 2023
Trans-Atlantic Doctoral Conference*	May 2023

"Impulse Response Inferences With Existence of Repeated Roots"

Boston University Econometrics Seminar	October 2021

"Partial Identification Under Multiple Nest Structures"

Boston University Econometrics Seminar	April 2023

TEACHING EXPERIENCE

Discussion Instructor

Statistics for Economics (Graduate)	2023, 2024
Empirical Economic Analysis 2 (Undergraduate)	2022
Introductory Macroeconomics (Undergraduate)	2020, 2021

Teaching Assistant

Environmental Economics (Undergraduate)	2022

SKILLS

Programming: MATLAB, R, Python, Stata, SQL

Languages: English (fluent), Chinese (native), Japanese (Intermediate)

Hobbies: tennis, video games

REFERENCES

Hiroaki Kaido (hkaido@bu.edu)
(*main advisor*)
Associate Professor (with tenure), Department of Economics, Boston University

Marc Rysman (mrysman@bu.edu)
(*committee member*)
Professor, Department of Economics, Boston University

Andrey Siminov (as5443@gsb.columbia.edu)
(*committee member, coauthor*)
Gary Winnick and Martin Granoff Associate Professor of Business, Columbia University & CEPR