

Finitely Heterogeneous Treatment Effect in Event-study (draft)

- Treatment effect estimation strategies in the event-study setup, namely panel data with variation in treatment timing, often use the parallel trend assumption that assumes mean independence across different treatment timings. In this paper, I relax the parallel trend assumption by including a latent type variable and develop a *conditional* two-way fixed-effects model. With a finite support assumption on the latent type variable, I show that an extremum classifier consistently estimates the type assignment. Then I solve the endogeneity problem of the selection into treatment by conditioning on the latent type, through which the treatment timing is correlated with the outcome. I also allow treatment to affect units of different types differently and thus directly model and estimate type-level heterogeneity in treatment effect.

Work in progress

Clustering Sensitivity with Weakly Dependent Data

- The use of clustered standard errors can be justified with a weak dependence assumption: given a metric of distance between units of observations, such as geographical distance, dependence between two units fades away as the distance grows. Under the weak dependence structure, any clustering structure is valid for inference as long as it clusters observations in a way that the distance between units from different clusters is large. This paper shows that there is large variation in the inference result based on the choice of the clustering structure and suggests a simple remedy to summarize multiple inference results based on multiple clustering structures.

TEACHING

The University of Chicago

Fall 2018 Empirical Analysis I (PhD), TA for Prof. Azeem Shaikh
Winter 2019 Empirical Analysis II (PhD), TA
for Prof. Lars Peter Hansen and Prof. Harald Uhlig
Spring 2019 Econometrics (Undergraduate), TA for Prof. Azeem Shaikh
Fall 2019 Microeconomics (MBA), TA for Prof. Michael Gibbs
Spring 2020 Econometrics (Undergraduate), TA for Prof. Azeem Shaikh
Spring 2021 Topics in Econometrics (PhD), TA for Prof. Stephane Bonhomme
Spring 2022 Topics in Econometrics (PhD), TA for Prof. Stephane Bonhomme

HONORS AND AWARDS

The University of Chicago

2017-2022 Social Science Division Fellowship
2017-2022 Neubauer Fellowship
2018 Lee Prize, *highest score earned on the price theory core exam*
2022-2023 George J. Stigler Fellowship
2022-2023 Immasche Fellowship

The Korea Foundation for Advanced Studies

2017-2022 Overseas PhD Scholarship

SERVICE

Referee

Marketing Science, Food Policy