

Jianhan Zhang

<https://jianhzhang.github.io>

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Research fields

Last updated: December 1, 2023

Primary: Econometric theory;

Secondary: Applied Econometrics, Financial Econometrics.

Education

PhD in Economics

Sep 2019 - Jan 2024(expected)

University of Guelph(Canada)

Committee: [Thanasis Stengos](#)(Chair), [Yiguo Sun](#), [Hong Li](#)

Thesis title: "Endogeneity on Threshold Regression Model"

M.A in Economics

Sep 2016 - Aug 2019

Central University of Finance and Economics(China)

BA in Economics

Sep 2012 - May 2016

Anhui University of Finance and Economics(China)

Working papers

Endogeneity Kink Threshold Regression

(Job market paper)

[Jianhan Zhang](#), [Chaoyi Chen](#), [Yiguo Sun](#) and [Thanasis Stengos](#)

Resubmitted to JBES

- This paper considers an endogenous kink threshold regression model with an unknown threshold value in a time series as well as a panel data framework, where both the threshold variable and regressors are allowed to be endogenous. We construct our estimators from a nonparametric control function approach and derive the consistency and asymptotic distribution of our proposed estimators. Monte Carlo simulations are used to assess the finite sample performance of our proposed estimators. Finally, we apply our model to analyze the impact of COVID-19 cases on labor markets in the US and Canada.

Threshold Regression Model with Mismeasured Variables

[Jianhan Zhang](#), [Yiguo Sun](#)

- In this article, we consider a threshold regression model with possibly mismeasured regressors. Following [Lewbel \(2012\)](#), we employ error heteroskedasticity to construct valid moment conditions. This method proves especially useful when instrumental variables or other side information are missing or unreliable. We propose a two-step GMM estimator as well as a robust estimator based on the median of means method to overcome possible heavy-tailed problems. We apply our approach to investigate the potential threshold relationship among investment, Tobin's q , and cash flow.

Linear Control Function Approach in Endogenous Kink Threshold Regression Models

[Jianhan Zhang](#), [Chaoyi Chen](#), [Yiguo Sun](#) and [Thanasis Stengos](#)

- In this paper, we extend Hansen(2017) by allowing the endogeneity in a kink threshold regression model. We apply the linear control function approach and both the threshold variable and regressors are allowed to be endogenous.

Work in progress

Robust Generalized Method of Moments (GMM) Estimation in Error-in-Variables Models

Jianhan Zhang, Yiguo Sun

Threshold Regression Model with Non-Classical Measurement Errors

Jianhan Zhang, Yiguo Sun

Latent Group Structure in the Kink Threshold Regression Model

invited paper by

econometrics

Chaoyi Chen, Jianhan Zhang, and Thanasis Stengos

Analyzing the Nexus Between Natural Disasters and Economic Growth: Insights from a Threshold Regression Model

Insurance Institute of Canada project(CS000252)

Jianhan Zhang, Hong Li and Thanasis Stengos

Projects

Research Assistant

Dr. Thanasis Stengos	S21; W22; W23; S23
Dr. Yiguo Sun	F22
Dr. Kurt Annen	S21
Dr. Fred Liu	S22
Dr. Hong Li	F23

Book revision

F20-F21

with Prof. Ray Rees(LMU) and Prof. Mike Hoy

Mathematics for Economics 4ed

Referee

Empirical Economics ×2

Teaching interests

Graduate

Econometrics Theory, Applied Econometrics

Undergraduate

Statistics, Econometrics, Financial Econometrics

Teaching

Lecturer for Economic Statistics(ECON2740)

F23 [*Syllabus*]

Conference

Economic students workshop(Guelph)

W22/W23

38th Canadian Econometrics Study Group Annual Meeting

F23

Technical skills

Tools R, Matlab, Python, Gauss, L^AT_EX

Language

English Fluent
Chinese Native

References

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