Ta-Cheng Huang

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Academic Positions

Research Assistant Professor, *Global Asia Institute, National University of Singapore* *August 2018 –*

Lecturer, *Department of Finance and Economics, Texas State University* *January 2017 - May 2018*

Education

Ph. D. in Economics, *Texas A&M University* *May 2018*

M. A. in Mathematics and Statistics, *Boston University* *September 2011*

M. A. in Economics, *National Taiwan University* *June 2007*

B. A. in Political Science with a minor in Economics, *National Taiwan University* *June 2004*

Research

Research Interests

Microeconometrics, Econometric Theory, Applied Econometrics, Field Experiments.

Research Statement

Publications

[3] Huang, Ta-Cheng, Hongjun Li, and Zheng Li (2020): "A modified bootstrap of kernel-based specification test with heavy-tailed data," *Economics Letters*, forthcoming. DOI

[2] Crespo, Pablo, and Ta-Cheng Huang (2018): "Implied volatility estimation via ℓ_1 trend filtering," *The Journal of Derivatives*, 26(1), pp. 45-66. DOI

[1] Chen, Xirong, Ta-Cheng Huang, and Qi Li (2017): "An alternative bandwidth selection method for estimating functional coefficient models," *Economics Letters*, 156, pp. 27-31. DOI

Working Papers

[2] "Testing for unobserved heterogeneous treatment effects with observational data," with Yu-Chin Hsu and Haiqing Xu. *R&R at Econometric Theory*.

[1] "Causal effects for co-integrated non-stationary series: An augmented synthetic control approach," with Pablo Crespo.

Work in Progress

[4] "Nonparametric tests for treatment effect heterogeneity under Regression Kink design."

Abstract. Heterogeneity in causal effects has been the focus in the treatment effect literature for decades. This paper is the first to propose tests for treatment effect heterogeneity under the Regression Kink design. The proposed tests study the following three policy relevant questions: i) whether a policy treatment is beneficial for at least some subpopulations defined by covariate values; ii) does the treatment has any impact on at least some subpopulations; and iii) are the treatment effects heterogeneous across subpopulations. Monte Carlo simulations show that the proposed tests perform very well in small samples. The tests are applied to the Continuous Wage and Benefit History Project (CWBH) to study the impact of unemployment insurance benefits on unemployment durations in Louisiana between 1981 and 1992.

[3] "Nonparametric tests for monotonicity in treatment effect under Regression Kink design."

Abstract. This paper proposes nonparametric monotonicity tests for treatment effects on treated under Regression Kink design. The tests allow us to test whether the treatment effects are monotonically correlated with conditioning covariates of interests. We show the consistency and asymptotic uniform size control of the proposed tests. A small set of Monte Carlo simulations shows that the proposed tests perform well in small samples. The tests are applied to the Continuous Wage and Benefit History Project (CWBH) to study the impact of unemployment insurance benefits on unemployment durations in Louisiana between 1981 and 1992.

[2] "The Effect of Activities-based Subsidy on Body Fat Loss: A Field Experiment Study," with Noah Lim, Andrea Park, and Kegon Tan.

Abstract. We designed a subsidy on health-improving activities. Our subsidy provides some structure, helping these people by signalling what they should be spending and working on to reach the goal. Moreover, instead of having participants invest upfront for cash reward at the end if they reach their goal, we intend to provide the cash upfront in the form of a conditional subsidy to help them reach this goal. We have conducted a pilot study with 100 participants and had some promising results. We plan to run a larger scale field experiment with 600 participants to establish the statistical significance and study the mechanism in early 2021.

[1] "Helping Weaker Sales Agents via Temporary Transfers: A Field Experiment Study," with Hua Chen and Noah Lim.

Abstract. We designed two types of transfers: upward and downward transfers to help low-performing salespeople increase their daily sales in the retailing business, which has many store with different traffic levels. Upward transfers move low-performing salespeople to a store with heavier traffic, while downward transfers shift them to a lighter traffic store. We hypothesized that upwardly transferred salespeople can improve the efficiency of converting a walk-in to a customer. Meanwhile, transferred salespeople can earn more commissions, which will serve as a new reference income when they return to the previous store. On the other hand, the downwardly transferred salespeople will have longer interaction time to practice sales skills, and lower expected income will motivate them. We plan to run a field experiment with 128 salespeople in early 2021.

Teaching

Teaching Statement and Evaluations

Independent Instructor *These courses were at undergraduate level, unless noted otherwise.

Texas State University

Money and Banking	*Spring 2018, Fall 2017*
Principle of Macroeconomics	*Spring 2018*
Principle of Microeconomics	*Fall 2017, Spring 2017*
Intermediate Macroeconomics	*Spring 2017*

Texas A&M University

Financial Economics	*Fall 2016, Fall 2015*
Macroeconomic Theory	*Spring 2016*

Teaching Assistant *Responsible for teaching weekly (or daily in summer) review sessions.

Texas A&M University

Summer Math-Stat Boot Camp (PhD)	*2017, 2016, 2015, 2014*
Introduction to Econometrics	*Spring 2014*
Econometrics (PhD)	*Spring 2013, Fall 2012*

Honors, Awards, and Grants

Research

The Lynde and Harry Bradley Fellowship, Private Enterprise Research Center, *Texas A&M University* — *Spring 2015, Fall 2014*

Competitive Scholarship, *Texas A&M University* — *Summer 2014*

Margarette Harrell Webber Scholarship, Private Enterprise Research Center, *Texas A&M University* — *Summer 2013*

Teaching

Outstanding Graduate Student Course Instructor, *Texas A&M University* — *Fall 2016, Fall 2015*

Others

Travel Grant, *National University of Singapore* — *August 2018*

Travel Grant, *Texas State University* — *January 2018*

Graduate Assistantship, *Texas A&M University* — *Fall 2015 – Fall 2016, Fall 2012 – Spring 2014*

Professional Activities

Presentations

2018 Texas State University, 27th Annual Meeting of the Midwest Econometrics Group

2017 Emporia State University

Disciplinary Services

Referee for *Journal of Econometrics* (2)

Department Services

Texas A&M University

Graduate Student Representative	*Spring 2016*, *Fall 2015*
Graduate Student Coordinator of the 8th ASHE conference	*October 2014*
Graduate Student Coordinator of Texas Theory Camp 2013	*September 2013*

Programming Skills

Matlab, R, Stata, Julia, and Python

Last updated in November 2020