

**TIANCHENG SUN**

**LONDON SCHOOL OF ECONOMICS & POLITICAL SCIENCE**

**Department of Economics**

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**GENDER:** Male

**CITIZENSHIP:** Chinese

**PRE-DOCTORAL STUDIES:**

2014 – 2015: MRes in Economics, London School of Economics and Political Science, UK  
2013 – 2014: MSc in Economics, London School of Economics and Political Science, UK  
2012 – 2013: MA in Finance, Tulane University, US  
2008 – 2013: BSc in Economics, Zhejiang University, China

**DOCTORAL STUDIES:**

London School of Economics

**DATES:** 2015 - present

**THESIS TITLE:** "Essays on Capacity Underutilization and Demand Driven Business Cycles"

**EXPECTED COMPLETION DATE:** June 2020

**THESIS ADVISOR AND REFERENCES:**

Prof. Wouter Den Haan (supervisor)  
Department of Economics  
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1. Prof. Ricardo Reis (advisor)  
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2. Prof. John Moore (advisor)  
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3. Dr. David Baqaee  
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**DESIRED TEACHING AND RESEARCH:**

Primary Fields: Macroeconomics

Secondary Fields: Monetary Economics

**TEACHING EXPERIENCE:**

2016 – 2020: Introductory Course for MSc EME (EC451), Macroeconomics, Pre-session Course  
2016 – 2019: Advanced Macroeconomics (EC417)  
2016 – 2018: Tools for Macroeconomists: Advanced Tools (ME421), Summer Course  
2016 – 2018: Tools for Macroeconomists: The Essentials (ME421), Summer Course  
2015 – 2016: Economics B (EC102)

**RELEVANT POSITIONS HELD:**

2019 – 2020: Teaching Assistant for Prof. John Moore  
2018 – 2019: Teaching Fellow for Prof. Wouter Den Haan, Prof. John Moore, and Prof. Petr Sedláček  
2016 – 2018: Teaching Fellow for Prof. Wouter Den Haan, Prof. John Moore, and Dr. David Baqaee  
2016 – 2017: Research Assistant for Dr. David Baqaee

**LANGUAGES**

Native: Chinese  
Fluent: English

**HONORS, SCHOLARSHIPS AND FELLOWSHIPS:**

2016 – 2019: Teaching Fellowship  
2018 – 2019: Class Teacher Award  
2017 – 2018: Highly Commended as a departmental class teacher  
2014 – 2016: Economics Departmental Scholarships  
2012 – 2013: Dean's List of the Freeman School, Tulane University

**COMPLETED PAPERS:**

***Job Market Paper:***

“Capacity Underutilization and Demand Driven Business Cycles”, working paper, 2019

Abstract: I propose a macroeconomic model where firms hold capacity to compete for buyers who are not fully attentive to price differences and thus search for capacity in a somewhat random way. Because of this capacity competition among firms, capacity is underutilized for production in the long term. Demand naturally drives business cycles as a result of capacity underutilization. A shock to consumption demand generates a large movement in investment, an acyclical real wage, and a pro-cyclical Solow residual. Estimation results indicate that the single consumption demand shock can already explain a large fraction of the business cycle fluctuations.

**RESEARCH IN PROGRESS:**

“Lack of Investment Volatility under Demand Shocks in Standard Underutilization Models”, working paper, 2019

A large literature has tried to introduce capital or capacity underutilization into macro models. However, in these models, capital or capacity is not utilized precisely because it is too costly to be utilized. Hence, if capital or capacity utilization rate goes up when consumption demand increases, the real marginal cost of producing or acquiring goods goes up, dampening the response of investment to demand. Quantitatively, the relative volatility of investment to consumption in standard models is too small compared to what is observed in the U.S. data.

“Understanding Sunspot Equilibria in New Keynesian Models”, work in progress, 2019

Macroeconomists usually accept stable sunspot paths as rational expectation equilibria. There are two concerns about this practice. First, explosive sunspot paths may also be equilibria because we may not have a relevant transversality condition to rule them out (e.g., Cochrane, 2011). Second, many economists argue that a reasonable equilibrium should be learnable (e.g., Christiano et al., 2018); however, sunspot equilibria are not guaranteed to have stability under learning. In a simple Keynesian beauty contest based on Moulin (1986), I find that, like stable sunspot paths, explosive sunspot paths are also rational expectation equilibria; however, all sunspot equilibria, regardless of their stability, are not learnable under the adaptive learning. The only learnable equilibrium turns out to be the one without any sunspot shocks. To understand the consequences of a fixed nominal interest rate better, more work needs to be done to examine whether sunspot equilibria are learnable and whether explosive sunspot equilibria are equally plausible in new Keynesian models.