# ZHITING WU

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# **EDUCATION**

The University of St Andrews, Scotland
D.Phil Candidate in Economics and Finance

The University of Manchester, England
Ph.D. Student in Finance

The University of Leicester, England
M.Sc. in Financial Economics

Guangxi University, China
B.Sc. in Management

August 2017 - Present
September 2016 - August 2017

September 2014 - January 2016

September 2014 - January 2016

# RESEARCH INTERESTS

Asset Pricing, Macroeconomics, Macro Finance.

# WORKING PAPER

# Firm Heterogeneity in Production-Based Asset Pricing: the Role of Habit Sensitivity and Lumpy Investment (Job Market Paper)

**Abstract**: I study the interaction between lumpy investment and asset prices in both time-series and cross-section. To this end, I build a model with lumpy investment a variant of habit sensitivity function of Campbell-Cochrane (1999) habit preference. The model produces 100% equity volatility by generating volatile marginal utility and robustly matches investment dynamics under non-convex costs. Second, my model reproduces almost 100% equity premiums because the benchmark model assigns additional weights on precautionary savings and constrained firms, respectively. My model also generates considerable size premiums since small firms absorb more productivity risks. Finally, my model reasonably matches crucial moments of macro-dynamics and the cross-sectional investment rate.

# A Productivity Risks Driving q-Factor Model

Abstract: I incorporate the productivity risks into an investment-based q-factor asset pricing model. The productivity risks factors largely summarize the cross-sectional portfolio return, where the time-varying volatility plays an important role. A parsimonious q-factor model driven by productivity risks explains about 90% variation of return of 25 Size/BM portfolios and 75% variation of return of 160 portfolios, which is comparable to the Fama-French multifactor models, the Carhart (1997) four-factor model, and the Hou, Mo, Xue & Zhang (2020) augmented q-factor model. As such, productivity risks significantly affect asset prices and can be one of the potential forces driving investment-based factor models.

# The Sensitivity of Risk Premiums to the Elasticity of Inter-temporal Substitution

Abstract: I offer two extensions on Pagel (2016)'s reference-dependent preference and study their aggregate implications in a consumption-based asset pricing model. I first extend time-separable utility to recursive utility, which allows the model to reproduce crucial asset pricing moments with a simple IID process for consumption growth. Second, I estimate and introduce a first-order autoregression consumption shock, and I find that it improves model performance by smoothing interest rates. My additional finding is that the elasticity of intertemporal substitution is more sensitive to asset prices given the recursive preference.

#### CONFERENCE

2020: The 2020 Computational Economics and Finance Annual Meeting (Paper Accepted); The 2020 Midwest Economic Theory Conference (Paper Accepted); The 2020 Royal Economic Society Junior Symposium (Paper Accepted); The 2020 Graduate Student Chinese Economics Conference; The 2020 Annual Conference on Asia-Pacific Financial Markets (Scheduled); The 2020 European Winter Meeting of Econometric Society (Scheduled).

**2019**: The Scottish Graduate Programme in Economics Residential Conference; The 6th Young Finance Scholar Conference; The 50th Bank of England Money, Macro, and Finance Annual Meeting.

2018: The UK-China Doctoral Academic Forum Conference.

# **DISCUSSION**

**2020**: The Bank of England Money, Macro, and Finance PhD Conference: The Signalling Channel of Negative Interest Rates, by Oliver de Groot and Alex Hass.

# COMPUTATIONAL SKILLS

**Programming** C++, Dynare, Fortran, Matlab, R Studio

Statistical PackagesEviews, Gretl, StataDocument EditionLatex, Lyx, MS Office

Databases Bloomberg, CRSP, Wharton

# **AWARDS**

China Scholarship Council PhD Scholarship	September 2016 - Present
Distinction with Master of Science in Financial Economics	January 2016
Outstanding Graduates in Department (rank 2nd of 61)	June 2014
3rd Place Chinese Debate Competition in Guangxi University	December 2011
Professional Scholarship in Department	June 2011
2nd Place Wusi Speech Contest in Business School, Guangxi University	May 2011

# **CERTIFICATES**

Certificate of Accounting Professional, Certificate of Securities Professional

# **LANGUAGES**

Mandarin (Native Speaker); Cantonese (Native Speaker); English (Fluent)

# REFERENCE

Dr. Matthew Knowles (Chair), Research Fellow, The University of Cologne, knowles@wiso.uni-koeln.de Prof. Oliver de Groot, Chair in Macroeconomics, The University of Liverpool, oliverdegroot@gmail.com Prof. Roderick McCrorie, Director of Research, The University of St Andrews, jrm210@st-andrews.ac.uk Dr. Ioannis Psaradellis, Lecturer, The University of St Andrews, joannis.psaradellis@st-andrews.ac.uk