# JINGYI REN

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# EDUCATION

Ph.D. in Economics, University of Washington (UW)	Seattle, WA, Sept 2014 - June 2019
Ph.D. Candidate in Economics	Jan 2018 - present
M.A. in Economics	Sept 2014 - June 2016
B.A. in Economics, Peking University	Beijing, Sept 2010 - Jul 2014

### ACADEMIC AWARDS

Richard B. Wesley Endowed Graduate Fellowship, University of Washington	
Alberta C. Corkery Endowed Fellowship, University of Washington	2014
Teaching/Research Assistantship, University of Washington	2015-2019
Leo Koguan Fellowship, Peking University	2012
Wusi Fellowship, Peking University	2012
Prize for Academic Excellence, Peking University	2012 & 2011
Xinhe Fellowship for excellence at UC Berkeley summer school, Peking Universit	y 2012
Freshman Fellowship, Peking University	2010

### Reference

Eric Zivot (co-chair), Professor	Yu-chin Chen (co-chair), Associate Professor
Department of Economics	Department of Economics
University of Washington	University of Washington
ezivot@uw.edu	yuchin@uw.edu

### Thomas Gilbert (committee), Associate Professor

Foster School of Business University of Washington gilbertt@uw.edu

## RESEARCH

Fields of Specialization International Finance, Macro-Finance, Asset Pricing, Applied Econometrics Working Papers

"Term Structure of Risk in Currency Market: Dynamic, Trading Rule and Common Risk Factor." (single author, Job Market Paper, 2018)

- Selected as oral presentation at 5th Conference of the International Association for Applied Econometrics at Montreal 2018.
- Abstract: With the tool of a new FX risk index, "FCX", we derive currency risk term structure and measure its shape by level and slope. We consistently find that for currencies paired by US dollars, term structure of currency risk is flat at a low level prior to 2008 crisis, upward-sloping after the crisis, and peaks at a high level with prominently negative slope during the crisis. This work is believed to be new in currency research field. This information is useful to build trading strategies, earning profit by longing currencies with highest level or slope and shorting ones with lowest level or slope. The profit by sorting slope is significantly high and robust to 2008 crisis period, with low correlation to Carry Trade return. This information is also useful to extract global risk factors to help understand currency excess return, which has been a longlasting puzzle. The global risk factor by level substantially improves cross-sectional explanation power in currency excess returns, compared to Lustig et al. (2011). *Furthermore, we show that there is certain high risk corresponding to high level and low* slope, and high interest rate currency earns returns co-varying negatively to the risk embodied in our global risk factors of level and slope, implying that it's risky asset and thus require high risk premium, which well explains Carry Trade.

# **"The Link between Currency Market and Macro Events."** (with Yu-chin Chen and Yida Li, in progress, 2018)

• Ideas: With the explanation power of risk term structure on currency excess return as a potential risk factor, it would be valued to explore what is priced in it (van Binsbergen and Koijen, 2017). We are exploring the interactions between currency risk term structure and macro events using conventional VAR approach (Gertler and Karadi, 2015) and local projection method (Jorda 2005).

"Currency Returns and the Term Structure of FX Derivatives." (with Yu-chin Chen and Ranga Gwati, to be submitted, 2018)

• Abstract: This paper proposes using foreign exchange (FX) options with different strike prices and maturities to capture both FX expectations and risks. We show that exchange rate movements, which are notoriously difficult to model empirically, are well-explained by the term structures of forward premia and options-based measures of FX expectations and risk. Although this finding is to be expected, expectations and risk have been largely ignored in empirical exchange rate modeling. Using daily options data for six major currency pairs, we show that the cross-section options-implied standard deviation, skewness and kurtosis consistently explain not only the conditional mean but also the entire conditional distribution of subsequent currency excess returns for horizons ranging from one week to twelve months. Our results highlight the importance of

expectations and risk in explaining exchange rate dynamics and suggest that they play a time-varying role.

"Does Risk Natural Probability Predict Currency Return Better? A Test from Recovery Theorem." (with Yu-chin Chen and Anthony Sanford, in progress, 2018)

**"Towards Urban-Rural Sustainable Cooperation: Models and Policy Implication."** (with Xi Ji and Sergio Ulgiati, revised and resubmitted to *Journal of Cleaner Production*, 2018)

• Abstract: In the process of urbanization, many developing countries have had, or are being confronted with severe imbalance between urban and rural development, which causes serious un-sustainability. To address these challenges, this paper designs models to explore an 'urban-rural sustainable cooperation' pattern with the idea of developing green poverty reduction. Firstly, the infinitely repeated game model with trigger strategy is employed to prove the feasibility of establishing long-term urban-rural cooperation mode. Then this paper further discusses four requirements to enhance the accomplishment of green economy by cost-benefit analysis model: high antipollution costs afterwards, low time preference rate, the society's urgent need for environmental restoration, and high output gains without destroying environment. Lastly, this paper puts forward targeted policy proposals accordingly for relieving urban-rural imbalance problems in developing countries.

### TEACHING

Introduction to Microeconomics, Lecturer, UW Economics	2017
Introduction to Microeconomics, Teaching Assistant, UW Economics	2015-2019
Decision Support and Models (MBA), Grader/Teaching Assistant, UW Foster Busine	ess 2016
Data Science for Strategic Pricing, Grader/Teaching Assistant, UW Economics	2018

#### **INTERNSHIP**

Amazon (HQ), Economist Intern

Starbucks (HQ), Data Scientist

Seattle, WA, 06/17-08/17 Seattle, WA, 06/16-09/16

### OTHER

### Programming: R, MATLAB, STATA, PYTHON, SQL, LATEX

Language: Chinese (native), English (fluent)