

# Yicheng Zhu

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**Date of Birth** 22 March 1990  
**Nationality** Chinese

## Research Interest

Asset Pricing, Macroeconomics, Econometrics

## Education

**The Wharton School, University of Pennsylvania** 2015 - Present  
Ph.D., Finance, expected completion May 2020

**Harvard University** 2012 - 2014  
A.M., Statistics

**Peking University** 2008 - 2012  
B.S., Mathematics and Applied Mathematics

## Working Papers

### **A Unified Theory of the Term Structure and the Beta Anomaly (Job Market Paper)**

Rational expectation models generally suggest that assets with more exposure to systematic risks should carry higher risk premia. However, several empirical findings challenge this result. I propose a novel generalized recursive smooth aversion model that allows agents to show different levels of aversion to short-run consumption risk and long-run shocks. I apply this model to a consumption-based asset pricing model in which the representative agent's consumption process is subject to rare but large disasters. The calibrated model matches major asset pricing moments, while riskier assets could carry lower risk premia.

*Presented at Wharton*

## **Learning with Rare Disasters (with Jessica A. Wachter)**

Financial crises appear to have long-lasting effects, even after the crisis itself has past. This paper offers a simple explanation through Bayesian learning from rare events. Agents face a latent and time-varying probability of economic disaster. When a disaster occurs, learning results in greater effects on asset prices because agents update their probability of future disasters. Moreover, agents' belief that the disaster risk is high can rationally persist for years, even when it is in fact low. We generalize the model to allow for a noisy signal of the disaster probability. This generalized model explains excess stock market volatility together with negative skewness, effects that previous models in the literature struggle to explain.

*Presented at Econometric Society European Winter Meeting 2019 (scheduled), WFA 2019, Wharton*

## **A Model of Two Days: Discrete News and Asset Prices (with Jessica A. Wachter)**

Empirical studies demonstrate striking patterns in stock market returns in relation to scheduled macroeconomic announcements. First, a large proportion of the total equity premium is realized on days with macroeconomic announcements, despite the small number of such days. Second, the relation between market betas and expected returns is far stronger on announcement days as compared with non-announcement days. Finally, these results hold for fixed-income investments as well as for stocks. We present a model with latent regimes that jointly explains these phenomena. In our model, which is solved in closed form, agents learn the value of a latent probability of an adverse economic state on announcement days. We show that the model can quantitatively account for the empirical findings.

*Presented at AFA 2019, the Stockholm School of Economics, Tulane University, the University of North Carolina, Wharton*

## **Work in Progress**

### **Overshooting, Slow Recovery, and Asset Prices (with Winston Wei Dou)**

Time-varying likelihood of large adverse macroeconomic shocks (i.e. disaster risk shocks) can reconcile many asset pricing patterns and macroeconomic dynamics. Yet it requires excessively huge “disaster” size, and it generates unrealistic downward-sloping term structure of real interest rates. With labor market frictions, moderate adverse economic shocks can endogenously trigger “disastrous” rapid economic downturns followed by slow recoveries. Such overshooting and slow recovery transitional dynamics have crucial asset pricing implications: they reconcile excessive fluctuations in labor market flows and stock returns with smooth consumption process; and more importantly, they generate upward-sloping term structure of real interest rates, even when business cycles are largely driven by disaster risk shocks.

## **Fellowships, Honors, and Awards**

Jacobs Levy Center Research Paper Prizes, Best paper, 2019

Dean's Fellowship for Distinguished Merit, Wharton School, 2015-2020

## Teaching Experience

### The Wharton School, University of Pennsylvania

Introduction to Empirical Methods in Finance, PhD	2018
Fintech: Business of Finance and Technology, MBA/Undergraduate	2016, 2018
Foundations of Financial Economics, PhD	2018
Advanced Topics in Dynamic Asset Pricing, PhD	2018

### Harvard University

Introduction to Quantitative Methods for Economics, Undergraduate	2014, 2015
Applied Quantitative Finance, Graduate/Undergraduate	2014

## Referee

*Quarterly Journal of Economics*

## Languages

Chinese (native), English (fluent)

## References

### **Prof. Jules H. van Binsbergen**

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### **Prof. Jessica A. Wachter (Chair)**

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