

# Chen Wang

239 Mendoza College of Business, Notre Dame, IN 46556

✉ chen.wang@nd.edu • 🌐 chenwang.one

## Employment

**University of Notre Dame, Mendoza College of Business**

*Assistant Professor of Finance*

**Notre Dame, IN**

2021–

## Education

**Yale School of Management**

*Ph.D. in Financial Economics*

*Dissertation Committee:*

*Nicholas Barberis (Chair), Stefano Giglio, Tobias Moskowitz, Kelly Shue*

**New Haven, CT**

2020

**Columbia Business School**

*M.S. in Financial Economics*

**New York, NY**

2014

**Peking University**

*B.A. in Finance (Honors), Guanghua School of Management*

**Beijing, China**

2012

## Research Interests

Asset Pricing, Behavioral Finance, Macro Finance

## Research

### Working Papers

#### 1. Valuation Duration of the Stock Market (2023), with Ye Li

*Abstract:* At the peak of the tech bubble, only 0.57% of market valuation comes from dividends within one year. Taking the ratio of total market value to the value of one-year dividends, we obtain a duration of 175 years. In contrast, during the height of the global financial crisis, more than 2.2% of market value is from dividends in the next year, implying a duration of only 46 years. What drives market duration? We find that market participants have very limited information about cash flow beyond one year. Therefore, an increase in market duration is due to a discount-rate decrease rather than good news about long-term growth. Indeed, market duration strongly and negatively predicts market return, outperforming other predictors in the literature. The associated market timing strategy bets against long-term valuation relative to the valuation of short-term growth of which market participants are much more informed. While the standard price-dividend ratio reflects the overall valuation level, market duration captures the slope of the valuation term structure. We show that by serving as a discount-rate proxy, market duration is a critical state variable that augments the price-dividend ratio in spanning the (latent) state space for stock-market dynamics.

#### 2. Under- and Overreaction in Yield Curve Expectations (2021)

*Abstract:* I document a robust pattern in how Treasury market participants' yield curve expectations respond to new information: forecasts for short-term rates underreact to news while forecasts for long-term rates overreact. I propose a new explanation of this based on "autocorrelation averaging," whereby, due to limited processing capacity, forecasters' estimate of the autocorrelation of a given process is biased toward the average autocorrelation of all related processes. Consistent with this view, forecasters *overestimate* the

autocorrelation of the less persistent term-premium component of interest rates and *underestimate* the autocorrelation of the more persistent short-rate component; a calibrated model quantitatively matches the documented pattern of misreaction. Moreover, banks' allocations to Treasuries vary *positively* with their expectations of bond returns and misreaction proxies can strongly predict future short- and long-term bond returns, respectively.

3. **Factor Rebalancing** (2023), with Cameron Peng

*Abstract:* We propose a novel source of predictable price pressure resulting from mutual funds' factor rebalancing behavior. When a fund's factor demand is persistent, it needs to frequently rebalance its portfolio's factor exposure, leading to stock-level predictable trading and price pressure. We confirm the persistence of factor demand and show that factor rebalancing is prevalent and operates independently from trading induced by retail flows. Consistent with demand-induced price pressure, stocks whose characteristics are mismatched with the underlying funds' factor demand experience lower returns, whereas well-matched stocks experience higher returns. We rule out alternative explanations based on private information, skills, and herding.

4. **A Factor Framework for Cross-Sectional Price Impacts** (2023), with Yu An and Yinan Su

*Abstract:* We study how noisy flows impact the cross-section of asset prices. Our framework emphasizes the interaction between the factor structure of flows and the risk structure of assets. Specifically, systematic flows into systematic risk factors imply a factor model of price impacts. We develop empirical methods for the model by introducing flows into classical portfolio tools, including the Sharpe ratio, the Fama-MacBeth regression, the Fama-French portfolios, and the Gibbons-Ross-Shanken test. We estimate the model using U.S. equity mutual fund flows data. The model-implied strategy that optimally profits from flows improves the investment performance of most existing characteristics-based anomaly portfolios.

5. **The Impact of Beliefs on Credit Markets: Evidence from Rating Agencies** (2023), with Gregory Weitzner

*Abstract:* An open question in finance and economics is how the beliefs of agents in the economy affect the credit cycle and real economic activity. We analyze the impact of beliefs on credit market conditions in the context of credit rating agencies (CRAs). We measure CRAs' subjective beliefs as the difference in forecasts of future aggregate credit spreads between CRAs and a consensus of other financial institutions. When CRAs are relatively more optimistic, they issue higher credit ratings even though their forecasts do not contain additional information regarding future credit market conditions. CRA optimism leads to lower initial yields and subsequent negative returns for newly issued bonds. In response to this mispricing, firms increase their debt, leverage, and investment, where the effects are most pronounced among rated firms. Overall, our analysis shows how beliefs drive aggregate financing and investment behavior through mispricing in credit markets.

6. **Rediscover Predictability: Information from the Relative Prices of Long-term and Short-term Dividends** (2019), with Ye Li

*Abstract:* The prices of dividends at alternative horizons contain critical information on the behavior of the aggregate stock market. The ratio between prices of long- and short-term dividends, "price ratio" ( $pr$ ), predicts annual market return with an out-of-sample  $R^2$  of 19%.  $pr$  subsumes the predictive power of the traditional price-dividend ratio ( $pd$ ). After orthogonalized to  $pr$ , the residuals of  $pd$  strongly predict dividend growth. Using an exponential-affine model, we show a one-to-one mapping between  $pr$  and the expected market return when the expectation of future cash flow is transient. Moreover, we find that return predictability is stronger after market downturns and holds outside the U.S. As an economic test, shocks to  $pr$  are priced in the cross-section of stocks, consistent with ICAPM. Our measure of expected

return declines during monetary expansions and varies strongly with the conditions of the macroeconomy, financial intermediaries, and sentiment.

## 7. **Delegation Uncertainty** (2019), with Ye Li

*Abstract:* Delegation bears an intrinsic form of uncertainty. Investors hire asset managers for their superior information, but delegation outcome is uncertain precisely because managers' information is unknown to investors. We model investors' delegation decision as a trade-off between asset return uncertainty and delegation uncertainty. Our theory explains several puzzles on fund performances. It also delivers asset pricing implications supported by our empirical analysis: (1) because investors partially delegate and hedge against delegation uncertainty, CAPM alpha arises; (2) the cross-section dispersion of alpha increases in uncertainty; (3) managers bet on alpha, engaging in factor timing, but factors' alpha is immune to the rise of their arbitrage capital – when investors delegate more, delegation hedging becomes stronger.

## Work in Progress.....

8. **Inflation Expectations and Money Illusion in the Stock Market** (2023), with Zhi Da
9. **Coarse Thinking about Interest Rates** (2023), with Kelly Shue and Richard Townsend
10. **Pre-Refunding Announcement Trading in the U.S. Treasurys** (2024), with Kevin Zhao
11. **Speed Limits in Asset Prices** (2023), with Ben Matthies and John Shim

## Conferences and Seminars

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| 2024 | AFA Annual Meeting, Yale SOM, MFA Annual Meeting ( $\times 2$ ), FSU Truist Beach Conference, 7th World Symposium on Investment Research   |
| 2023 | AFA Annual Meeting, MFA Annual Meeting, Southern Methodist University, University of Georgia, FMCG 2023, Boulder Summer Conference on Consumer Financial Decision Making, DC Junior Finance Conference*, FIRS, SoFiE 2023 Conference*, Southwestern University of Finance and Economics, CICF*, Wabash River Finance Conference, City University of Hong Kong*, Chinese University of Hong Kong*, University of Macau*, NFA Annual Meeting, 10th SAFE Asset Pricing Workshop, UT Dallas Fall Finance Conference*, Office of Financial Research (OFR), Johns Hopkins Carey, Federal Reserve Board, Notre Dame ( $\times 2$ )                          |
| 2022 | Finance Down Under, McGill*, MFA Annual Meeting, NBER Behavioral Finance Working Group Meeting, SFS Cavalcade North America, Notre Dame, Shanghai University of Finance and Economics, Johns Hopkins Carey*, FIRS, CICF, AsianFA Annual Meeting, Peking University, 10th Helsinki Finance Summit*, EFA Annual Meeting, Office of the Comptroller of the Currency (OCC), Chicago Quantitative Alliance (CQA) Annual Academic Competition*, Renmin University of China*, Wolfe Research 6th Annual Wolfe Global Quantitative and Macro Investment Conference*, Federal Reserve Board*, Chinese University of Hong Kong (Shenzhen), Campbell & Company* |
| 2021 | AFA Annual Meeting*, Cambridge*, MFA Annual Meeting, LSE*, Notre Dame ( $\times 2$ ), Yale, Birkbeck (University of London)*, WFA Annual Meeting, BlackRock, Peking University Guanghua Finance Alumni Conference, China International Risk Forum, NFA Annual Meeting, FMA Annual Meeting  |
| 2020 | Hong Kong University of Science and Technology, Cheung Kong Graduate School of Business, University of Hong Kong, National University of Singapore, Chinese University of Hong Kong, Notre Dame ( $\times 2$ ), Michigan Ross, University of Florida, Cornerstone Research, FMA Annual Meeting   |

2019	RCFS/RAPS Conference at Baha Mar ( $\times 2$ , one by coauthor), LSE*, USI Lugano*, ASU Sonoran Winter Finance Meeting*, European Winter Finance Summit*, MFA Annual Meeting*, SFS Cavalcade North America, SGF Conference*, CICF*, Stanford SITE*, Yale SOM
2018	North America Summer Meeting of the Econometric Society, CEPR ESSFM Gerzensee*, Geneva Workshop on Financial Stability in a New Era*, NFA Annual Meeting, UT Dallas Fall Finance Conference, Orebro Workshop on Predicting Asset Returns, Chinese University of Hong Kong*, HKUST Finance Symposium*, INSEAD*, 16th Paris December Finance Meeting*, University of Zurich*
pre-2018	LBS Trans-Atlantic Doctoral Conference, Yale SOM

(including scheduled; \* indicates presentation by coauthor)

## Invited Discussions

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17. *Inflation and Labor in the Cross-Section of Returns*, Hao Jiang, Chris Parsons, Lin Sun, and Sheridan Titman, MFA, 2024
16. *Asset Pricing In a World of Imperfect Foresight*, Peter Bossaerts, Felix Fattinger, Frans van den Bogaerde, and Wenhao Yang, FIRS, 2023
15. *Weather Induced Employment Growth Surprises and the Cross-Section of Local Stock Returns*, Xi Li, Andrea Lu, and Huijun Wang, FMCG, 2023
14. *Do Investors Read the Fine Print? Salient Thinking and Security Design*, Petra Vokata, MFA, 2023
13. *The Case of the Disappearing Skewness*, Matthieu Gomez, Valentin Haddad, and Erik Loualiche, AFA, 2023
12. *Does the Market Understand Time Variation in the Equity Risk Premium?*, Mihir Gandhi, Niels Joachim Gormsen, and Eben Lazarus, AFA, 2023
11. *Investor Betas*, Ryan Lewis and Shrihari Santosh, EFA Annual Meeting, 2022
10. *"Buy the Rumor, Sell the News": Liquidity Provision by Bond Funds Following Corporate News Events*, Alan Huang, Russ Wermers, and Jinming Xue, AsianFA Annual Meeting, 2022
9. *Geographic Links and Predictable Returns*, Zuben Jin and Frank Weikai Li, CICF, 2022
8. *Sources of Return Predictability*, Beata Gafka, Pavel Savor and Mungo Wilson, FIRS Annual Meeting, 2022
7. *Heterogeneous Investors and Stock Market Fluctuations*, Sebastian Hillenbrand and Odhrain McCarthy, NBER Behavioral Finance Working Group Meeting, Spring 2022
6. *When Do Subjective Expectations Explain Asset Prices?*, Ricardo de La O and Sean Myers, MFA Annual Meeting 2022
5. *Arbitrage in the Binary Option Market: Distinguishing Behavioral Biases*, Aaron Goodman and Indira Puri, FMA Annual Meeting, 2021
4. *Topic Similarity and Return Predictability*, Zuben Jin, China International Risk Forum, 2021
3. *Loan Choice of Local Governments in the United Kingdom*, Davide Avino and Dennis De Widt, FMA Annual Meeting, 2020
2. *Index Investing and Asset Pricing under Information Asymmetry and Ambiguity Aversion*, David Hirshleifer, Chong Huang, and Siew Hong Teoh, SFS Cavalcade North America, 2019
1. *The Term Structure of Short Selling Costs*, Gregory Weitzner, LBS Trans-Atlantic Doctoral Conference, 2016

## Professional Services

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### Ad-hoc Referee

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*Journal of Finance, Review of Financial Studies, Management Science, Review of Asset Pricing Studies, Journal of Banking & Finance, Journal of Empirical Finance, Journal of Econometrics, Journal of Applied Econometrics*

### Conferences

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- *Midwest Finance Association Annual Meeting 2021, 2022, 2024, Reviewer*
- *Whitebox Advisors Graduate Student Conference 2019, Organizer*
- *Lynne & Andrew Redleaf Foundation Graduate Student Conference 2020, Organizer*

## Honors and Awards

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- Financial Markets and Corporate Governance Conference Runner-up for Best Paper, 2023
- Chicago Quantitative Alliance Academic Competition Second Prize, 2022
- CFAM-ARX Paper Award, Finance Down Under Conference, 2022
- 16th Paris December Finance Meeting Award for the Best Paper, 2018
- Lynne & Andrew Redleaf Foundation Fellowship, Yale International Center for Finance, 2020
- Whitebox Advisors Fellowship, Yale International Center for Finance, 2019
- AFA Doctoral Student Travel Grant, 2019
- Whitebox Research Grant, Yale International Center for Finance, 2018 and 2019
- Yale University Fellowship, 2014-2019
- Robin Li (Baidu) Scholarship; International Exchange Student Scholarship; Academic Excellence Award, Peking University, 2008-2012

## Experiences

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### Teaching

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#### University of Notre Dame

Notre Dame, IN

*Instructor*

2021-

- FIN40660: Fixed Income Investment Strategies

#### Yale School of Management

New Haven, CT

*Teaching Assistant*

2015-2020

- (Ph.D.) Financial Economics II: Asset Pricing Theory (Prof. Alan Moreira)
- (MBA) Behavioral Finance × 2 (Prof. Nicholas Barberis)
- (MBA) Corporate Finance × 4 (Profs. James Choi, Kelly Shue, and Heather Tookes)
- (MBA/Undergraduate) Next China × 2 (Prof. Stephen Roach)
- (MBA/EMBA) Portfolio Management × 3 (Prof. William Goetzmann)

#### Columbia Business School

New York, NY

*Research Assistant to Prof. Kent Daniel*

2013-2014

### Professional

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#### Goldman Sachs

New York, NY

*Quantitative Investment Strategies*

2013

#### Citigroup Global Markets

Shanghai, China

*Fixed Income & Currencies Trading*

2011

## Additional

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**Programming Languages:** Python, R, Matlab, SAS, Stata, Mathematica, Julia, C++

## References

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### **Nicholas C. Barberis**

Stephen and Camille Schramm Professor of Finance  
Yale School of Management  
165 Whitney Avenue  
New Haven, CT 06511  
✉ [nick.barberis@yale.edu](mailto:nick.barberis@yale.edu)  
☎ +1-203-436-0777

### **Kelly Shue**

Professor of Finance  
Yale School of Management  
165 Whitney Avenue  
New Haven, CT 06511  
✉ [kelly.shue@yale.edu](mailto:kelly.shue@yale.edu)  
☎ +1-203-432-8953

### **Stefano Giglio**

Professor of Finance  
Yale School of Management  
165 Whitney Avenue  
New Haven, CT 06511  
✉ [stefano.giglio@yale.edu](mailto:stefano.giglio@yale.edu)  
☎ +1-203-432-3373

### **Tobias J. Moskowitz**

Dean Takahashi '80 B.A., '83 M.P.P.M Professor of Finance  
Yale School of Management  
165 Whitney Avenue  
New Haven, CT 06511  
✉ [tobias.moskowitz@yale.edu](mailto:tobias.moskowitz@yale.edu)  
☎ +1-203-436-5361

*Last Update: February, 2024*