DRAFT: 1/5/2024

Economics 980z
Spring 2024
Junior Seminar on Behavioral Finance

Meeting Time

Tuesdays, 12:00-2:00pm, Littauer M-15

Contact details

Jeremy Stein, jeremy_stein@harvard.edu
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Teaching fellows: Alex Wu, alex_wu@fas.harvard.edu

Course Overview

Topical coverage: This seminar provides an overview of recent theoretical and empirical work on financial markets that adopts a "behavioral" perspective—i.e., that considers the joint consequences of: i) investors who have either less-than-fully rational beliefs or non-standard preferences; and ii) various impediments to arbitrage.

Structure and goals: The aim of the seminar is to get students to interact intensively around research ideas, and ultimately, to produce a significant piece of their own work. All in-class activity, as well as the assignments, are designed with this aim in mind.

Requirements and grading

- You must attend every class and participate actively. Failure to attend—without a documented medical or dean's excuse—will result in a reduction of your grade.
- Each week, starting with Week 2, turn in a short (2 page) discussion note on a designated paper. The note should flag questions, critiques, and/or suggestions for follow-up work, and should not simply summarize the paper. The note is due by 6PM on the Monday before class and should be emailed to both the teaching fellow and me. You do not need to submit a note on the week when you have another presentation to do—see just below. The notes, along with the class participation they are designed to foster, will collectively count for 35% of the course grade.
- At some point in the semester, each student will be assigned to be the lead in-class discussant for one of the papers on the reading list. You should plan to lead a discussion for 20-30 minutes and prepare a set of slides accordingly. This will count for 15% of the course grade. We will make initial allocations of students to papers at the start of the semester, but you are free to re-trade among yourselves as long as you let us know in advance.
- The last two weeks of the semester will be reserved for final research presentations of about 15 minutes each. These, together with the final paper itself, will count for 50% of the course grade.
- The final paper is due on Friday, April 26. A 3-5 page proposal is due on Monday, March 18. You should plan to meet with me at least once outside of class to discuss your paper topic.

Website

All readings and lecture notes will be available on the course website.

Daily Schedule

Jan 23	Class 1	Course Intro, Market Efficiency
Jan 30	Class 2	Limited Arbitrage
Feb 6	Class 3	Over and Under-Reaction
Feb 13	Class 4	Extrapolative Beliefs
Feb 20	Class 5	Trading Behavior
Feb 27	Class 6	Differences of Opinion and Short-Sales Constraints
Mar 5	Class 7	Retail Trading and the Pandemic
Mar 12	NO CLASS: SPRING BREAK	
Mar 19	Class 8	Behavioral Corporate Finance I: Irrational Markets
Mar 26	Class 9	Behavioral Corporate Finance II: Overconfident Managers
Apr 2	Class 10	Credit Cycles
Apr 9	Class 11	Foreign Exchange
Apr 16	Class 12	FINAL RESEARCH PRESENTATIONS
Apr 23	Class 13	FINAL RESEARCH PRESENTATIONS

Reading List

Notes:

- This is a long reading list, in part meant to be a resource for you if you want to dig deeper on a particular topic. We will not cover all the papers in class, and you are not expected to read them all.
- Papers marked with a (*****) will be the focus of class discussions. Please have a look at these in advance of each class.
- Papers marked with a (**DN**) are options that can be used for the weekly discussion notes. If there is more than one option in a given week, feel free to choose whichever you prefer.
- Papers marked with an (**LD**) will be assigned to individual students for their roles as lead discussants.
- In addition to the papers on the reading list, you are strongly encouraged to read Matt Levine's Bloomberg column Money Stuff every day. You can subscribe for free at this link: https://www.bloomberg.com/account/newsletters/money-stuff

1. Market Efficiency: Arguments and Evidence

*Lamont, Owen and Richard Thaler (2003), "Anomalies: The Law of One Price in Financial Markets," Journal of Economic Perspectives 17: 191-202.

*Barberis, Nicholas and Richard Thaler (2003), "A Survey of Behavioral Finance," in Handbook of the Economics of Finance, edited by George Constantinides, Milton Harris and Rene Stulz. Amsterdam: North-Holland, Vol. 1B, Chapter 18, 1053-1128.

Summers, Lawrence H. (1986), "Does the Stock Market Rationally Reflect Fundamental Values?" Journal of Finance 41: 591-601.

Froot, Kenneth A. and Emil Dabora (1999), "How Are Stock Prices Affected by the Location of Trade?" Journal of Financial Economics 53: 189-216.

Black, Fischer (1986), "Noise," Journal of Finance 41: 529-543.

2. Limited Arbitrage

*DeLong, J. Bradford, Andrei Shleifer, Lawrence H. Summers and Robert Waldmann (1990), "Noise Trader Risk in Financial Markets," Journal of Political Economy 98: 703-738.

*Shleifer, Andrei and Robert W. Vishny (1997), "The Limits of Arbitrage," Journal of Finance 52: 35-55.

*Coval, Joshua and Erik Stafford (2007), "Asset Fire Sales (and Purchases) in Equity Markets," Journal of Financial Economics 86. **[DN]**

*Cho, Thummim (2020), "Turning Alphas into Betas: Arbitrage and Endogenous Risk," Journal of Financial Economics, 137: 550-570. **[DN]**

Stein, Jeremy C. (2009), "Presidential Address: Sophisticated Investors and Market Efficiency," Journal of Finance, 64: 1517-1548.

Hanson, Samuel G., and Adi Sunderam (2014), "The Growth and Limits of Arbitrage: Evidence from Short Interest," Review of Financial Studies 27: 1238–1286.

3. Over- and Under-reaction

*Hong, Harrison and Jeremy C. Stein (1999), "A Unified Theory of Underreaction, Momentum Trading and Overreaction in Asset Markets," Journal of Finance 54: 2143-2184.

*Huberman, Gur, and Tomer Regev (2001), "Contagious Speculation and a Cure for Cancer: A Non-Event that Made Stock Prices Soar," Journal of Finance 56: 387-396.

*Cohen, Lauren and Andrea Frazzini (2008), "Economic Links and Predictable Returns," Journal of Finance 63: 1977-2011. **[DN, LD#1]**

*Pollet, Joshua and Stefano DellaVigna (2009), "Investor Inattention and Friday Earnings Announcements," Journal of Finance 64: 709-749. **[DN, LD#2]**

Jegadeesh, N. and Sheridan Titman (1993), "Returns to Buying Winners and Selling Losers: Implications for Stock Market Efficiency," Journal of Finance 48: 65-91.

Barberis, Nicholas, Andrei Shleifer and Robert Vishny (1998), "A Model of Investor Sentiment," Journal of Financial Economics 49: 307-343.

Hong, Harrison, Terence Lim and Jeremy C. Stein (2000), "Bad News Travels Slowly: Size, Analyst Coverage, and the Profitability of Momentum Strategies," Journal of Finance 55: 265-295.

Cohen, Lauren, and Dong Lu (2012), "Complicated Firms," Journal of Financial Economics 104: 383-400.

4. Extrapolative Beliefs

*Bordalo, Pedro, Nicola Gennaioli, Rafael LaPorta, and Andrei Shleifer (2023), "Belief Overreaction and Stock-Market Puzzles," Journal of Political Economy, forthcoming.

*Barberis, Nicholas, Robin Greenwood, Lawrence Jin, and Andrei Shleifer (2018), "Extrapolation and Bubbles," Journal of Financial Economics 129: 203-227. **[DN, LD#3]**

*Blank, Michael, Spencer Kwon and Johnny Tang (2023), "Investor Composition and Overreaction," working paper. **[DN, LD#4]**

Chen, Weihua, Shushu Liang and Donghui Shi (2023), "What Drives Stock Prices in a Bubble?" working paper.

Greenwood, Robin, and Andrei Shleifer (2014), "Expectations of Returns and Expected Returns," Review of Financial Studies 27: 714-746.

Brunnermeier, Markus K, and Stefan Nagel. (2004) "Hedge Funds and the Technology Bubble Journal of Finance 59: 2013-2040.

5. Trading Behavior

*Odean, Terrance (1998), “Are Investors Reluctant to Realize Their Losses?” Journal of Finance 53: 1775-1798.

*Odean, Terrance and Brad Barber (2001), “Boys Will Be Boys: Gender, Overconfidence and Common Stock Investment,” Quarterly Journal of Economics 116: 261-292. **[DN, LD#5]**

*Grinblatt, Mark, and Matti Keloharju (2009), “Sensation Seeking, Overconfidence, and Trading Activity,” Journal of Finance 64, 549-578.

*Meeuwis, Maarten, Jonathan Parker, Antoinette Schoar, and Duncan Simester (2022), “Belief Disagreement and Portfolio Choice,” Journal of Finance 77, 3191-3247. **[DN, LD#6]**

Frazzini, Andrea (2006), “The Disposition Effect and Underreaction to News,” Journal of Finance, 61: 2017-2046.

6. Differences of Opinion and Short-Sales Constraints

*Chen, Joseph, Harrison Hong and Jeremy C. Stein (2002), “Breadth of Ownership and Stock Returns,” Journal of Financial Economics 66: 171-205.

*Hong, Harrison and Jeremy C. Stein (2007), “Disagreement and the Stock Market,” Journal of Economic Perspectives, 21, 109-128.

*Frazzini, Andrea and Owen Lamont (2007), “The Earnings Announcement Premium and Trading Volume,” NBER working paper 13090.

*Hong, Harrison, and David Sraer (2013), “Quiet Bubbles,” Journal of Financial Economics 110: 596-606. **[DN, LD#7]**

*Engelberg, Joseph, Richard B. Evans, Greg Leonard, Adam V. Reed, and Matthew C. Ringgenberg, (2023) “The Loan Fee Anomaly: A Short Seller’s Best Ideas,” Management Science, forthcoming. **[DN, LD#8]**

Harrison, J. Michael and David M. Kreps (1978), “Speculative Investor Behavior in a Stock Market with Heterogeneous Expectations,” Quarterly Journal of Economics 92: 323-336.

D’Avolio, Gene (2002), “The Market for Borrowing Stock,” Journal of Financial Economics 66: 271-306.

Hong, Harrison and Jeremy C. Stein (2003), “Differences of Opinion, Short-Sales Constraints and Market Crashes,” Review of Financial Studies, 16, 487-525.

Scheinkman, Jose and Wei Xiong, (2003), “Overconfidence and Speculative Bubbles,” Journal of Political Economy 111, 1183-1219.

Ofek, Eli and Matthew Richardson (2003), “DotCom Mania: The Rise and Fall of Internet Stock Prices,” Journal of Finance, 58, 1113-1138.

Nagel, Stefan (2005), “Short Sales, Institutional Investors, and the Cross-Section of Stock Returns,” Journal of Financial Economics 78: 277-309.

Cohen, Lauren, Karl Diether and Christopher Malloy (2007), "Supply and Demand Shifts in the Shorting Market," Journal of Finance 62, 2061-2096.

Geanakoplos, John (2009), "The Leverage Cycle," *NBER Macro Annual* 24, 1-65.

7. Retail Trading and the Pandemic

*Greenwood, Robin, Toomas Laarits and Jeffrey Wurgler (2023), "Stock Market Stimulus," Review of Financial Studies 36, 4082-4112.

*Barber, Brad M., Xing Huang, Terrance Odean, and Chris Schwarz, (2022), "Attention-Induced Trading and Returns: Evidence from Robinhood Users," Journal of Finance 77, 3141-3190. **[DN, LD#9]**

*Welch, Ivo, (2022), "The Wisdom of the Robinhood Crowd," Journal of Finance 77, 1489-1527. **[DN, LD#10]**

Cox, Josue, Daniel L. Greenwald, and Sydney C. Ludvigson, (2021), "What Explains the COVID-19 Stock Market?" National Bureau of Economic Research working paper.

Charles M. Jones, Xiaoyan Zhang, and Xiran Zhang, (2022), "Retail Investors in the Pandemic," working paper.

8. Behavioral Corporate Finance I: Irrational Markets

*Baker, Malcolm and Jeffrey Wurgler (2013), "Behavioral Corporate Finance: A Current Survey," in Handbook of the Economics of Finance, Volume 2A: Corporate Finance. edited by George M. Constantinides, Milton Harris and Rene M. Stulz. New York: Elsevier/North Holland.

*Baker, Malcolm, Jeffrey Wurgler and Jeremy C. Stein (2003), "When Does the Market Matter? Stock Prices and the Investment of Equity-Dependent Firms," Quarterly Journal of Economics 118: 969-1005.

*Shleifer, Andrei and Robert Vishny (2003), "Stock Market Driven Acquisitions," Journal of Financial Economics 70: 295-311.

*Ma, Yueran (2019), "Non-Financial Firms as Cross-Market Arbitrageurs," Journal of Finance 74: 3041-3087. **[DN, LD#11]**

*Baker, Malcolm, Mathias F. Hoeyer, and Jeffrey Wurgler (2020), "Leverage and the Beta Anomaly," Journal of Financial and Quantitative Analysis, 55: 1491-1514. **[DN, LD#12]**

Baker, Malcolm, and Jeffrey Wurgler (2000), "The Equity Share in New Issues and Aggregate Stock Returns," Journal of Finance 55, 2219-57.

Baker, Malcolm, Robin Greenwood, and Jeffrey Wurgler (2003), "The Maturity of Debt Issues and Predictable Variation in Bond Returns," Journal of Financial Economics 70, 261-291.

Greenwood, Robin, Samuel Hanson and Jeremy C. Stein (2010), "A Gap-Filling Theory of Corporate Debt Maturity Choice," Journal of Finance 65, 993-1028.

9. Behavioral Corporate Finance II: Overconfident Managers

*Heaton, J.B. (2002), "Managerial Optimism and Corporate Finance," Financial Management 31: 33-45.

*Bertrand, Marianne and Antoinette Schoar (2003), "Managing with Style: The Effect of Managers on Firm Policies," Quarterly Journal of Economics 118: 1169-1208.

*Malmendier, Ulrike and Geoff Tate, (2005) "CEO Overconfidence and Corporate Investment," Journal of Finance 60: 2661-2700.

*Malmendier, Ulrike and Geoff Tate (2008), "Who Makes Acquisitions? CEO Overconfidence and the Market's Reaction," Journal of Financial Economics 89: 20-43.

*Malmendier, Ulrike, Geoff Tate and Jon Yan (2011), "Overconfidence and Early-Life Experiences: The Effect of Managerial Traits on Corporate Financial Policies," Journal of Finance 66: 1687-1733. **[DN, LD#13]**

*Chen, Brian (2017), "Seeing is Believing: The Impact of Local Economic Conditions on Firm Expectations, Employment, and Investment, working paper. **[DN, LD#14]**

Graham, John, Campbell Harvey and Manju Puri (2013), "Managerial Attitudes and Corporate Actions," Journal of Financial Economics 109, 103-121.

10. Credit Cycles

*Stein, Jeremy C. (2021), "Can Policy Tame the Credit Cycle?" IMF Economic Review 69, 5-22.

*Kashyap, Anil K and Jeremy C. Stein (2023), "Monetary Policy When the Central Bank Shapes Financial-Market Sentiment," Journal of Economic Perspectives, 37, 53-76.

*Greenwood, Robin, and Samuel G. Hanson (2013), "Issuer Quality and Corporate Bond Returns," Review of Financial Studies 26: 1483–1525.

*Baron, Matthew and Wei Xiong (2017), "Credit Expansion and Neglected Crash Risk," Quarterly Journal of Economics, 132(2): 713-764. **[DN, LD#15]**

*Greenwood, Robin, Samuel Hanson, Andrei Shleifer, and Jakob Sorensen (2022), "Predictable Financial Crises," Journal of Finance 77(2): 863-921. **[DN, LD#16]**

*Lopez-Salido, David, Jeremy C. Stein, and Egon Zakrajsek (2017), "Credit-Market Sentiment and the Business Cycle," Quarterly Journal of Economics, 132(3): 1373-1426.

Mian, Atif, Amir Sufi and Emil Verner (2017), "Household Debt and Business Cycles Worldwide," Quarterly Journal of Economics, 132(4): 1755-1817.

Coval, Joshua D., Jakub W. Jurek, and Erik Stafford (2009), "Economic Catastrophe Bonds," American Economic Review, 99(3): 628-666.

Schularick, Moritz, and Alan M. Taylor (2012), "Credit Booms Gone Bust: Monetary Policy, Leverage Cycles, and Financial Crises, 1870-2008," American Economic Review 102: 1029-61.

Coval, Joshua D., Jakub W. Jurek, and Erik Stafford (2009), "The Economics of Structured Finance," Journal of Economic Perspectives, 23(1): 3–25.

11. Foreign Exchange

*Greenwood, Robin, Sam Hanson, Jeremy Stein and Adi Sunderam (2023), "A Quantity-Driven Theory of Term Premiums and Exchange Rates," Quarterly Journal of Economics, 138, 2327-2389.

*Du, Wenxin, Alexander Tepper and Adrien Verdelhan (2018) "Deviations from Covered Interest Parity," Journal of Finance 73: 915-957. **[DN, LD#17]**

*Avdjiev, Stefan, Wenxin Du, Catherine Koch and Hyun Song Shin (2019), "The Dollar, Bank Leverage and Deviations from Covered Interest Parity," American Economic Review: Insights 1: 193-208. **[DN, LD#18]**

Krishnamurthy, Arvind, and Hanno Lustig (2019), "Mind the Gap in Sovereign Debt Markets: The U.S. Treasury Basis and the Dollar Risk Factor," Federal Reserve Bank of Kansas City Jackson Hole Symposium.

Extra Material: Local, Social, and Media Influences

Coval, Joshua and Tobias Moskowitz (1999), "Home Bias at Home: Local Equity Preference in Domestic Portfolios," Journal of Finance 54: 2045-2073.

Hong, Harrison, Jeffrey D. Kubik and Jeremy C. Stein (2005), "Thy Neighbor's Portfolio: Word-of-Mouth Effects in the Holdings and Trades of Money Managers," Journal of Finance, 60: 2801-2824.

Cohen, Lauren, Andrea Frazzini, and Christopher J. Malloy (2008), "The Small World of Investing: Board Connections and Mutual Fund Returns," Journal of Political Economy 116: 951-979.

Fedyk, Anastassia (2022), "Front-Page News: The Effect of News Positioning on Financial Markets," Journal of Finance, forthcoming.

Cohen, Lauren, Andrea Frazzini, and Christopher J. Malloy (2009), "Sell-Side School Ties," Journal of Finance 65: 1409-1437.

Coval, Joshua and Tobias Moskowitz (2001), "The Geography of Investment: Informed Trading and Asset Prices," Journal of Political Economy 109: 811-841.

Huberman, Gur (2001), "Familiarity Breeds Investment," Review of Financial Studies 14: 659-680.

Hong, Harrison, Jeffrey D. Kubik and Jeremy C. Stein (2004), "Social Interaction and Stock-Market Participation," Journal of Finance, 59: 137-163.

Guiso, Luigi, Paola Sapienza and Luigi Zingales (2008), "Trusting the Stock Market," Journal of Finance 63: 2557-2600.

Hong, Harrison, Jeffrey D. Kubik and Jeremy C. Stein (2008), "The Only Game in Town: Stock Price Consequences of Local Bias," Journal of Financial Economics.

Tetlock, Paul C. (2007), "Giving Content to Investor Sentiment: The Role of the Media in the Stock Market," Journal of Finance 62: 1139-1168.

Tetlock, Paul C., Maytal Saar-Tsechansky, and Sofus Macskassy (2008) "More than Words: Quantifying Language to Measure Firms' Fundamentals," Journal of Finance 63: 1437-1467.

Engleberg, Joseph and Christopher Parsons (2011), "The Causal Impact of Media in Financial Markets," Journal of Finance 66: 67-97.