

Behavioral Finance

Term: Module I - Fall 2013

Lectures: Tuesdays and Fridays 1:30 PM – 3:20 PM

Classroom: D Theatre

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Office hour: By appointment.

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Course Description

Over the past several decades, the field of finance has developed a successful paradigm based on the notions that investors and managers were generally rational and the prices of securities were generally “efficient.” In recent years, however, anecdotal evidence as well as theoretical and empirical research has shown this paradigm to be insufficient to describe various features of actual financial markets. This course points out the limitation of the traditional finance theories and examines how the insights of behavioral finance complements the traditional paradigm.

The course begins with a review of the standard finance theories, in particular the efficient market hypothesis. It then examines a variety of financial market features that are hard to be explained by the traditional theory. We will then use psychology and more realistic settings to develop to guide and develop alternative theories of financial market, and shed light on investors’ trading patterns, the behavior of asset prices, as well as real world practices.

The course is taught through lectures. Homeworks will be assigned. There will also be a group project and a final exam. Grading is as follows:

1. Homework (20%)
2. Group project (30%)
3. Final Exam (50%)

As for the group project, up to five (no more than five) students can form a group. Each member is expected to contribute to the project. Each group should hand in a joint solution, and should also give a presentation of the work in class.

There will be no make-up final exams.

While there is no formal prerequisite, an introductory finance course at the masters level would be helpful. In addition, students are expected to be familiar with basic probability and statistics or econometrics at the undergraduate level.

Course materials, including papers, powerpoint presentations, and assignments, in general will be posted on the BlackBoard system at least one day before each class. You should go to <http://cms.pkusz.edu.cn/> and create a user account in order to access the system. Once you logon, search for the course “Behavioral Finance (BEHFIN13FALL)”. Please email me if you have any difficulty accessing the course materials. It is your responsibility to check the website regularly for the updates.

Tentative Schedule

Weeks 1 and 2: Review of non-behavioral finance

Weeks 3 and 4: Some motivating evidence of behavioral finance

Weeks 5, 6 and 7: Demand by arbitrageurs

Weeks 8 and 9: Demand by average investors, and review

Reading list

Textbook:

Inefficient markets: An Introduction to Behavioral Finance (Oxford University Press, 2000) by Andrei Shleifer. ISBN-10: 0198292279; ISBN-13: 978-0198292272.

We will also read straight from original academic research papers. In most cases these papers are but a few years old. Required readings are marked with a (*) below. This reading list may seem intimidating at first glance, but fear not! The most important formal models and statistical techniques will be covered in class. When sitting down to read a paper on your own, try to take away the key intuition and results of the paper. Don't dwell on the details unless you have a particular interest in the topic. Please do make a special effort at the required readings, which are less technical, and at least skim the supplemental readings. I will discuss all or almost all of the articles below in class, at least briefly.

I. Non-behavioral finance

In the beginning (i.e. the 1960s), there was the efficient markets hypothesis, and early authors found strong empirical support for the efficient markets hypothesis.

Roberts, Harry V. (1959). Stock market “patterns” and financial analysis: methodological suggestions. Journal of Finance, 14: 1-10.

Fama, Eugene (1970). Efficient capital markets: a review of theory and empirical work. Journal of Finance, 25:383-417.

(*) Fama, Eugene, Lawrence Fisher, Michael C. Jensen, and Richard R. Roll (1969). The adjustment of stock price to new information, International Economic Review, 10: 1-21.

Jensen, Michael C. (1968). The performance of mutual funds in the period 1945-1964. Journal of Finance, 23: 389-416.

II. Some motivating evidence

Over the past few decades, a number of curious patterns in asset returns have been discovered. Such patterns include return predictability in stocks

(*) Lakonishok, Josef, and Seymour Smidt (1988). Are seasonal anomalies real? A ninety-year perspective. Review of Financial Studies, 1: 403-425.

(*) Jegadeesh, Narasimhan, and Sheridan Titman (1993). Returns to buying winners and selling losers: implications for stock market efficiency. Journal of Finance, 48: 65-91.

(*) Lo, Andrew, and A. Craig MacKinlay (1990). When are contrarian profits due to stock market overreaction? Review of Financial Studies, 3: 175-206.

(*) Moskowitz, Tobias J., and Mark Grinblatt (1999). Do industries explain momentum? Journal of Finance, 54: 1249-1290.

(*) De Bondt, Werner F.M., and Thaler, Richard (1985). Does the stock market overreact? Journal of Finance, 40:793-805.

(*) Fama, Eugene, and Kenneth R. French (1992). The cross-section of expected stock returns. Journal of Finance, 47: 427-465.

Fama, E. F. and K. R. French (1993). Common risk factors in the returns on stocks and bonds. Journal of Financial Economics, 33: 3-56.

Daniel, Kent, and Sheridan Titman (1997). Evidence on the characteristics of cross-sectional variation in stock returns, Journal of Finance, 52: 1-33.

Lakonishok, J., Shleifer, A., and Vishny, R. (1994). Contrarian investment, extrapolation, and risk. Journal of Finance, 49:1541-78.

La Porta, Rafael, Lakonishok, Josef, Shleifer, Andrei, and Vishny, Robert (1997). Good news for value stocks: further evidence on market efficiency. Journal of Finance, 52:859-74.

Fama, Eugene, and Kenneth R. French (1989). Business conditions and expected returns on stocks and bonds. Journal of Financial Economics, 25: 23-49.

Shiller, R.J. (1981). Do stock prices move too much to be justified by subsequent changes in dividends? American Economic Review, 71:421-36.

And patterns of .the market reaction to news and non-news.

(*) Cutler, David, James Poterba, and Lawrence Summers (1989). What moves stock prices? Journal of Portfolio Management, 15(3): 4-12.

(*) 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.

(*) Bernard, Victor (1992). Stock price reactions to earnings announcements. In: Thaler, R. (Ed.), Advances in Behavioral Finance. New York: Russell Sage Foundation.

There are also curious predictability patterns in bonds, options, forex, futures, real estate, and sports bets.

Fama, Eugene, and Kenneth R. French (1989). Business conditions and expected returns on stocks and bonds. Journal of Financial Economics, 25: 23-49.

Stein, Jeremy (1989). Overreactions in the options market. Journal of Finance, 44: 1011-1022.

Froot, Kenneth A., and Richard H. Thaler (1990). Anomalies: foreign exchange. Journal of Economic Perspectives, 4:3 (Summer 1990): 179-192.

Roll, R. (1984). Orange juice and weather. American Economic Review, 74:861-80.

Bodoukh, Jacob, Matthew Richardson, YuQing Shen, and Robert Whitelaw (2002). Do asset prices reflect fundamentals?: Freshly squeezed evidence from the FCOJ market. NYU working paper.

Case, Karl E., and Robert J. Shiller (1989). The efficiency of the market for single-family homes. American Economic Review, 79: 125-137.

Liao, Hsien-hsing, and Jianping Mei (1998). Risk characteristics of real estate related securities: An extension of Liu and Mei (1992). Journal of Real Estate Research, 16:279-290.

Hausch, Donald, and William Ziemba (1995). Efficiency of sports and lottery betting markets. In: Handbooks in Operations Research and Management Science, vol. 9 (Elsevier).

III. Demand by arbitrageurs

Market prices reflect supply and demand. Aggregate demand can be usefully broken down into the demand of rational and/or highly sophisticated investors, which we'll call arbitrageurs, and the demand of typical human investors. There are a range of costs and risks that deter would-be arbitrageurs.

(*) Shleifer, Andrei, *Inefficient Markets* (first chapter).

(*) Froot, Kenneth A., and Dabora, Emile (1999). How are stock prices affected by location of trade? Journal of Financial Economics, 53(2):189-216.

(*) Shleifer, Andrei, *Inefficient Markets* (ch. 2 on noise trader risk; based on DeLong, Brad, Andrei Shleifer, Lawrence Summers, and Robert Waldmann, 1990, Noise trader risk in financial markets, Journal of Political Economy, 98: 703-738).

(*) Shleifer, Andrei, *Inefficient Markets* (ch. 3 on closed-end funds; based on Lee, Charles M., Andrei Shleifer, and Richard Thaler, 1991, Investor sentiment and the closed-end fund puzzle, Journal of Finance, 46: 75-110).

Wurgler, Jeffrey, and Zhuravskaya, Ekaterina (2002). Does arbitrage flatten demand curves for stocks? Journal of Business, 75: 583-608.

(*) Ali, Ashiq, Lee-Seok Hwang, and Mark A. Trombley (2003). Arbitrage risk and the book-to-market anomaly. Journal of Financial Economics, 69: 355-373.

(*) Mendenhall, Richard R. (2004). Arbitrage risk and post-earnings-announcement drift. Journal of Business, 77: 875-894.

(*) D'Avolio, Gene (2002). The market for borrowing stock. Journal of Financial Economics, 66: 271-306.

Xu, Wei, and Baixiao Liu (2012). Short squeeze. Peking University HSBC Business School working paper.

Miller, Edward M. (1977). Risk, uncertainty, and divergence of opinion, Journal of Finance, 32: 1151-1168.

(*) Jones, Charles M., and Lamont, Owen A. (2002). Short sale constraints and stock returns. Journal of Financial Economics, 66: 207-239.

(* Shleifer, Andrei, *Inefficient Markets* (ch. 4 on delegated arbitrage; based on Shleifer, Andrei, and Robert Vishny, 1997, The limits of arbitrage, Journal of Finance, 52: 35-55.)

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

Lamont, Owen A., and Richard Thaler (2003). Can the Market Add and Subtract? Mispricing in Tech Stock Carve-Outs, Journal of Political Economy, 111: 227-268.

Mitchell, Mark, Todd Pulvino, and Erik Stafford (2002). Limited Arbitrage in Equity Markets, Journal of Finance, 57: 551-584.

Ofek, Eli, Matthew Richardson, and Robert Whitelaw (2004). Limited arbitrage and short sales restrictions: Evidence from the options markets. Journal of Financial Economics, 74: 305-342.

In certain circumstances, the smart-money trade may actually reduce market efficiency.

(* Brunnermeier, Markus K., and Lasse Heje Pedersen (2005). Predatory trading. Journal of Finance, 60: 1825-1863.

(* Shleifer, Andrei, *Inefficient Markets* (ch. 6 on positive feedback trading; based on DeLong, Brad, Andrei Shleifer, Lawrence Summers, and Robert Waldmann, 1990, Journal of Finance, 45: 375-395).

(* Brunnermeier, Markus K., and Stefan Nagel (2004). Hedge funds and the technology bubble, Journal of Finance, 59: 2013-2040.

IV. Demand by average investors

Systematic investor sentiment ultimately derives from common cognitive limitations and systematic biases in investors' perceptions.

Barber, Brad M., and Terrance Odean (2000). Trading is hazardous to your wealth: the common stock investment performance of individual investors. Journal of Finance, 55: 773-806.

Barber, Brad M., and Terrance Odean (2001). Boys will be boys: gender, overconfidence, and common stock investment. Quarterly Journal of Economics, 116: 261-292.

Kahneman, Daniel, and Riepe, Mark (1998). Aspects of Investor Psychology. Journal of Portfolio Management, 24:52-65.

(* Klibanoff, Peter, Owen Lamont, and Thierry A. Wizman (1998). Investor reaction to salient news in closed-end country funds. Journal of Finance, 53: 673-699.

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.

(* Barberis, Nicholas, Shleifer, Andrei (2003). Style investing. Journal of Financial Economics, 68: 161-199.

(* Barberis, Nicholas, Shleifer, Andrei, and Jeffrey Wurgler (2005). Comovement. Journal of Financial Economics, 75: 283-317.

(* Shleifer, Andrei, *Inefficient Markets* (ch. 5 on a model of investor sentiment; based on Barberis, Nick, Andrei Shleifer, and Robert Vishny, 1998, A model of investor sentiment, Journal of Financial Economics, 49: 307-343).

Poteshman, Allen (2001). Underreaction, overreaction, and increasing misreaction to information in the options market. Journal of Finance, 56 (3): 851-876.

Daniel, Kent, Hirshleifer, David, and Subrahmanyam, Avanidhar (1998). Investor psychology and security market under- and overreactions. Journal of Finance, 53:1839-85.

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.

Shefrin, Hersh, and Meir Statman (1985). The disposition to sell winners too early and ride losers too long: Theory and evidence. Journal of Finance, 40(3): 777-790.

Odean, Terrance (1998). Are investors reluctant to realize their losses? Journal of Finance, 53: 1775-98.

Shefrin, Hersh, and Meir Statman (1984). Explaining investor preference for cash dividends. Journal of Financial Economics, 13: 253-282.

Yuan, Yu (2009). Attention and trading. Working paper.

These individual-level biases are consolidated and amplified by social interaction.

Hong, Harrison, Jeffrey D. Kubik, and Jeremy C. Stein (2004). Social interaction and stock-market participation. Journal of Finance, 59: 137-163.

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.

Lu, Timothy (Jun) (2012). Social interaction effects and individual portfolio choice: evidence from 401(k) pension plan investors. Working paper.

Shiller, R.J. (1984). Stock prices and social dynamics. Brookings Paper on Economic Activity, Feb: 457-98.

Antweiler, Werner, and Murray Z. Frank (2004). Is all that talk just noise? The information content of internet stock message boards, Journal of Finance 59: 1259-1294.

Kaustia, Markku, and Samuli Knupfer (2012). Peer performance and stock market entry. Journal of Financial Economics, 104: 321-338.

When facing uncertainty, investors often do not make "rational" choices.

(*) Kahneman, Daniel, and Amos Tversky (1979). Prospect theory: an analysis of decision under risk. Econometrica, 47: 263-292.

Tversky, Amos and Daniel Kahneman (1974). Judgement Under Uncertainty: Heuristics and Biases. Science, 185:1124-31.

Kahneman, Daniel (2003). Maps of bounded rationality: Psychology for behavioral economics. American Economic Review, 93: 1449-1475.

French, Kenneth R., and James M. Poterba (1991). Investor diversification and international equity markets. American Economic Review, 81: 222-226.

Huberman, Gur (2001). Familiarity Breeds Investment. Review of Financial Studies, 14(3): 659-680.

Armed with some understanding of arbitrageurs' and average investors' demands for securities, we are ready to take a more nuanced look at what goes on in "bubbles".

(*) Shleifer, Andrei, *Inefficient Markets* (sixth chapter, p. 169-174).

(*) Baker, Malcolm, and Jeffrey Wurgler (2006). Investor sentiment and the cross-section of stock returns. Journal of Finance, 61: 1645-1680.

Baker, Malcolm, Jeffrey Wurgler, and Yu Yuan (2012). Global, local, and contagious investor sentiment. Journal of Financial Economics, 104: 272-287.

Baker, Malcolm, and Jeffrey Wurgler (2007). Investor sentiment in the stock market, Journal of Economic Perspectives, 21 (2): 129-151.

Huang, Byoung-Hyoun (2011). Country-specific sentiment and security prices, Journal of Financial Economics, 100: 382-401.