

Behavioral Finance Spring 2015

Location/Time: Room 319, Monday-Thursday 13:30-15:20

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Office Hours: Wednesday 14:00 – 16:00 or by appointment

Course Description:

There is a growing strand of research suggesting that the standard economic paradigm, rational investors in an efficient market, does not adequately describe behavior in financial markets. After initial resistance from traditionalists, psychological economics is increasingly becoming part of social sciences. The main purpose of this course will be to explore behavioral finance, an area of finance suggesting alternatives to the traditional paradigm, and study a significant part of the literature. The intent will be to provide the students an extensive knowledge of the psychological, theoretical and empirical foundations of behavioral finance and prepare them to write independent research in this area. There are some fundamental principles that are relatively constant over time that students should know, and we will cover those in class. However, much of what happens under the heading of "behavioral finance" changes so rapidly that an important objective of the course is to help students become fast learners. As a result, the course will cover extensive reading materials. In the first part of the course, the foundations of behavioral economics and finance will be discussed. After a short review of the classical utility theory, some alternative approaches to the expected-utility theory will be discussed and explored. In the second part, students will examine a variety of financial market phenomena that are hard to explain by traditional theories complementing the traditional paradigm. Psychology and more realistic settings will be used to develop alternative theories of financial markets, and shed light on the observed behavior of the investors.

Learning Goals:

Students will be able to understand the main concepts underlying behavioral finance; and apply those behavioral concepts and skills to their own research. The course is designed so that they will be able to:

- identify systematic deviations from rational decision making by individuals;
- explain how cognitive limitations, including bounded rationality, affects investment decision making;
- keep themselves updated in the new developments of behavioral finance and facilitate their future research.

Prerequisites:

While there is no formal prerequisite, solid grasp of financial economics at master's level is instrumental. In addition, students are expected to be familiar with basic probability/statistics and econometrics at undergraduate level.

Grading:

Weightings on the various components of the final grade are as follows:

In-class participation	10%
Project	20%
Midterm Exam	30%
Final Exam	40%

In-class participation:

Students must be regular in class attendance. Fully attendance is required and everyone is expected to actively participate in the class discussions.

Project:

The project will consist in a report on a topic assigned by the instructor. Further details will be given later on by the instructor.

Exams:

Midterm and final exam will be closed book. Cell phones are not allowed as calculators. No cheat sheet is allowed in both exams.

Preliminary Course Schedule

Day	Торіс
Part I	Foundations of Behavioral Economics and Finance
March 2	Introduction to the Class
	Introduction to Behavioral Economics and Finance
March 5	Classical Utility Theory
	Paradoxes Challenging Utility Theory
March 9	Belief-based Preferences
March 12	Reference-dependent and News-utility Preferences
	Prospect Theory
March 16	Bounded Rationality
	The Quasi-Maximization Approach
March 19	Bounded Rationality
	The Quasi-Bayesian Approach
Part II	Specific Topics in Behavioral Finance
March 23	Loss Aversion
March 26	Disposition Effect
March 30	Midterm Exam
April 2	Overconfidence
April 8	Herding
April 9	Under- and Over-reaction of Prices
April 13	The Existence and Disappearance of Anomalies
	Seasonal and Calendar Effects
April 16	Accounting Anomalies
April 20	The Individual Investor
April 23	Limits to Arbitrage
April 27	Biases in Savings and Pension Decision
April 30	The Financial Crisis from a Behavioral Perspective
May 4	Final Exam

Course Materials:

The instructor will post readings and additional material on the course management system (CMS). The course name is "Behavioral Finance", the code is "BEHFIN2015".

Topics (the full reference is given in the list of readings below)

- 1. **Introduction to Behavioral Economics and Finance:** Barberis and Thaler, 2003; Baker and Sesia, 2007; Coval and Shumway, 2005, Della Vigna 2009, Rabin 1998.
- 2. Classical Utility Theory. Paradoxes Challeging Utility Theory: Fama, Fisher, Jensen, and Roll, 1969; Fama and French, 1992; Rabin and Thaler, 2001; Shiller, 1981.
- 3. **Belief-based Preferences:** Akerlof and Dickens, 1982, Brunnermeier and Parker, 2005, Loewenstein, 1987.
- 4. **Reference-dependent and News-utility Preferences. Prospect Theory:** Bownam, Minehart, and Rabin, 1999; Kahneman, Knetsch and Thaler, 1990; Kahneman, Knetsch and Thaler, 1991; Kahneman and Tversky, 1979; Koszegi and Rabin, 2009, Tversky and Kahneman, 1991.
- Bounded Rationality. The Quasi-Maximization Approach: Barberis, Huang and Thaler, 2006; Conlin, O'Donoghue and Vogelsan, 2007; Rabin and Weizsacker, 2009; Read and Van Leeuwen, 1998; Tversky and Kahneman, 1986.
- 6. **Bounded Rationality. The Quasi-Bayesian Approach:** Benartzi, and Thaler, 1999, Darley and Gross, 1983; Griffin and Tversky, 1992; Rabin and Schrag, 1999; Tversky, A., and D. Kahneman, 1971.
- 7. Loss Aversion: Benartzi and Thaler, 1995; Gneezy and Potters, 1997; Lopes, 1981; Mehra and Prescott, 1985; Samuelson, 1963; Tversky and Bar-Hillel, 1983.
- 8. **The Disposition Effect**: Constantinides, 1990; Genesove and Mayers, 2001; Odean, 1998; Shapira and Venezia, 2001; Shefrin and Statman, 1985,.
- 9. Overconfidence: Alpert and Raiffa, 1982; Barber and Odean, 1999, 2000, 2001; Bernardo and Welch, 2001; Daniel, Hirshleifer and Subrahmanyam, 1998; De Long, Shleifer, Summers and Waldmann, 1991; Gervais and Odean, 2001; Goel and Thakor, 2008; Grinblatt and Keloharju, 2009, Hirshleifer and Luo, 2001, Kyle and Wang, 1997; Malmendier and Tate, 2005a, 2005b, 2008, Malmendier, Tate, and Yan, 2007; Odean, 1999; Wang, 2001.
- Herding: Avery and Zemsky, 1998; Banerjee, 1992; Bickhchandani, Hirshleifer, and Welch, 1992; Bikhchandani and Sharma, 2000; Chiang and Zheng, 2010; Choe, Kho, Stulz, 1997; Froot, O'Connell and Seasholes, 2001; Froot, Scharfstein, and Stein, 1992; Graham, 1999; Grinblatt, Titman, and Wermers, 1995; Lakonishok, Shleifer, and Vishny, 1992; Venezia, Nashikkar, and Shapira, 2011; Welch, 2000.

- 11. Under- and Over-reaction of Prices: Conrad and Kaul, 1998; Daniel, Hirshleifer and Subrahmanyam, 1998; De-Bondt, and Thaler, 1985, 1987; Hong and Stein, 1999; Jegadeesh and Titman, 2001a, 2001b, 2002.
- 12. The Existence and Disappearance of Anomalies, Seasonal and calendar effects: Abraham and Ikenberry, 1994; Brockman and Michayluk, 1998; Chan and Lakonishok, 1993; Chan, Leung, and Wang, 2004; Doyle and Chen, 2009; French, 1980; Lakonishok and Maberly, 1990; Moller and Zilca, 2008; Venezia and Shapira, 2007.
- 13. Accounting Anomalies: Hou, Hirshleifer, and Teoh, 2007; Jiang, 2007; Lev and Nissim, 2006; Lewellen, 2010; Richardson, Tuna and Wysocki, 2010; Wu, Zhang, and Zhang, 2007.
- 14. **The Individual Investor**: Barber and Odean, 2011; Barber, Odean, and Zhu, 2009; Kaniel, Saar and Titman, 2008.
- 15. Limits to Arbitrage: De Long, Shleifer, Summers and Waldmann, 1990; Shleifer and Vishny, 1997.
- 16. **Biases in Savings and Pension Decision**: Benartzi, 2001; Benartzi and Thaler; 2001, 2007; Cohen, 2009; Huberman and Jiang 2006.
- 17. **The Financial Crisis from a Behavioral Perspective:** Fuster, Hebert and Laibson, 2011; Fuster, Laibson, and Mendel, 2010; Lamont and Thaler, 2003; Piazzesi, and Schneider, 2009.

The following list comprises compulsory and suggested readings. The instructor will inform the students on a regular basis on which reading to focus more extensively.

Readings:

Abraham, A., and D. L. Ikenberry, 1994, "The Individual Investor and the weekend Effect", The Journal of Financial and Quantitative Analysis, 29, 263-77.

Akerlof. G. A. and W.T. Dickens, 1982, "The Economic Consequences of Cognitive Dissonance", The American Economic Review, 72, 307-319.

Alpert, M., and H. Raiffa, 1982, "A Progress Report on the Training of Probability Assessors", in D. Kahneman, P. Slovic and A. Tversky, eds., *Judgment Under Uncertainty: Heuristics and Biases*, Cambridge: Cambridge University Press.

Avery C., and P. Zemsky, 1998, "Multidimensional Uncertainty and Herd Behavior in Financial Markets", The American Economic Review, 88, 724-748

Baker, M., and A. Sesia, 2007, "Behavioral Finance at JPMorgan", HBS.

Banerjee, A., 1992, "A simple model of herding behavior", Quarterly Journal of Economics, 107, 797–817.

Barber, B. M., and T. Odean, 1999, "The courage of misguided convictions", Financial Analysts Journal , 55, 41-55.

Barber, B. M., and T. Odean, 2000, "Trading Is Hazardous to Your Wealth: The Common Stock Investment Performance of Individual Investors", The Journal of Finance, 55, 773-806.

Barber, B. M., and T. Odean, 2001, "Boys Will be Boys: Gender, Overconfidence, and Common Stock Investment", The Quarterly Journal of Economics, 116, 261-292.

Barber, B. M., and T. Odean, 2011, "The Behavior of Individual Investors", Working Paper, Haas School of Business University of California Berkeley.

Barber, B. M., T. Odean, and N. Zhu, 2009, "Do Retail Trades Move Markets?", Review of Financial Studies, 22, 151-186.

Barberis, N., M.Huang, and R. Thaler, 2006, "Individual Preferences, Monetary Gambles, and Stock Market Participation: A Case for Narrow Framing", The American Economic Review, Vol. 96, No. 4 (Sep., 2006), pp. 1069-1090.

Barberis, N., and R. Thaler, 2003, "A Survey of Behavioral Finance", in: Constantinides, G., M. Harris, and R. Stulz, *Handbook of the Economics of Finance: Financial Markets and Asset Pricing*, North Holland, Amsterdam, 1053-1124.

Benartzi, S., and R. Thaler, 1995, "Myopic loss aversion and the equity premium puzzle", Quarterly Journal of Economics, 110, 73-92.

Benartzi, S., and R. Thaler, 1999, "Risk Aversion or Myopia? Choices in Repeated Gambles and Retirement Investments", Management Science, 45, 364-381.

Benartzi, S., 2001, "Excessive extrapolation and the allocation of 401(k) accounts to company stock", Journal of Finance, 1747-1764.

Benartzi, S., and R. Thaler, 2001, "Naïve Diversification in defined contribution saving plans", American Economic Review, 91, 79-98.

Benartzi, S. and R. Thaler, 2007, "Heuristics and Biases in Retirement Savings Behavior", Journal of Economic Perspectives, 21, 81–10.

Bernardo, A., and I. Welch, 2001, "On the Evolution of Overconfidence and Entrepreneurs", Journal of Economics and Management Strategy, 10, 301-330.

Bickhchandani, S., D. Hirshleifer, and I. Welch, 1992, "A Theory of Fads, Fashion, Custom, and Cultural Changes as Informational cascades", Journal of Political Economy, 100, 992-1026.

Bikhchandani, S., and S. Sharma, 2000, "Herd behavior in financial markets", IMF Staff Papers 47, 279-310.

Bownam, D., D. Minehart, and M. Rabin, 1999, "Loss aversion in a consumption-savings model", Journal of Economic Behavior & Organization, 38, 155-178.

Brockman, P., and D. Michayluk, 1998, "Individual Versus Institutional Investors and the Weekend Effect", Journal of Economics and Finance, 22, 71-85.

Brunnermeier, M. K. and J.A. Parker, 2005, "Optimal Expectations" American Economic Review, 95, 1092-1118.

Chan, L.K.C., and J. Lakonishok, 1993, "Institutional Trades and Intraday Stock Price Behavior", Journal of Financial Economics, 33, 173-199.

Chan, S.H., W. Leung, and K. Wang, 2004, "The Impact of Institutional Investors on the Monday Seasonal", The Journal of Business 77, 967-986.

Chiang, T.C., and D. Zheng, 2010, "An empirical analysis of herd behavior in global stock markets", Journal of Banking and Finance, 34, 1911-1921.

Choe, H., B. Kho, and R. Stulz, 1997, "Do foreign investors destabilize stock markets? The Korean experience", Journal of Financial Economics, 54, 227-264.

Cohen, L., 2009, "Loyalty Based Portfolio Choice", The Review of Financial Studies, 22, 773-806.

Conlin, M., T. O'Donoghue and T. J. Vogelsan, 2007, "Projection Bias in Catalog Orders", The American Economic Review, 97,1217-1249.

Conrad, J. and G. Kaul, 1998, "An anatomy of trading strategies", Review of Financial Studies, 11, 489-519.

Constantinides, G., 1990, "Habit Formation: A Resolution of Equity Premium Puzzle", The Journal of Political Economy, 98, 519–543.

Coval, J. D., and T. Shumway, 2005, "Do Behavioral Biases Affect Prices?", The Journal of Finance, 60, 1–34.

Daniel, K., D. Hirshleifer, and A. Subrahmanyam, 1998, "Investor Psychology and Security Market Under- and Overreactions", Journal of Finance, 53, 1839–1885.

Darley, J. M., and P. H. Gross, 1983, "A Hypothesis-Confirming Bias in Labeling Effects", Journal of Personality and Social Psychology, 44, 20-33.

De Bondt, W., and R. Thaler, 1985, "Does the stock market overreact?", Journal of Finance, 40, 793-808.

De Bondt, W., and R. Thaler, 1987, "Further evidence on investor overreaction and stock market seasonality", Journal of Finance, 42, 557-581.

DellaVigna, S., 2009, "Psychology and Economics: Evidence from the Field," Journal of Economic Literature, 47, 315-372.

De Long, J. B., A. Shleifer, L. H. Summers, and R. J. Waldmann, 1990, "Noise Trader Risk in Financial Markets", Journal of Political Economy, 98, 703-738.

De Long, J. B., A. Shleifer, L. H. Summers, and R. J. Waldmann, 1991, "The Survival of Noise Traders in Financial Markets", The Journal of Business, 64, 1-19.

Doyle, J. R., and C. H. Chen, 2009, "The wandering weekday effect in major stock markets", Journal of Banking & Finance, 33, 1388-1399.

Fama, E., L. Fisher, M. C. Jensen, and R. R. Roll, 1969, "The adjustment of stock price to new information", *International Economic Review*, 10, 1-21.

Fama, E., and K. R. French, 1992, "The cross-section of expected stock returns", *Journal of Finance*, 47, 427-465

French, K. R., 1980, "Stock Returns and the Weekend Effect", Journal of Financial Economics", 8, 55-70.

Froot, K. A., P.G.J. O'Connell, and M. S. Seasholes, 2001, "The portfolio flows of international investors", Journal of Financial Economics, 59, 151-193.

Froot, K. A., D. Scharfstein, and J. C. Stein, 1992, "Herd on the street: Informational inefficiencies in a market with short-term speculation", Journal of Finance, 47, 1461-1484.

Fuster, A., D. Laibson, and B. Mendel, 2010, "Natural Expectations and Macroeconomic Fluctuations," Journal of Economic Perspectives, 24, 67-84.

Fuster, A., B. Hebert, and D. Laibson, 2011 "Natural Expectations, Macroeconomic Dynamics, and Asset Pricing", NBER Macroeconomics Annual, 26, 1-48.

Genesove, D., and C. J. Mayer, 2001, "Loss Aversion and Seller Behavior: Evidence from the Housing Market", The Quarterly Journal of Economics, 112, 1233-1260.

Gervais, S., and T. Odean, 2001, "Learning to Be Overconfident", The Review of Financial Studies, 14, 1-27.

Gneezy, U., and J. Potters, 1997, "An experiment on risk taking and evaluation periods", The Quarterly Journal of Economics", 112, 631-645.

Goel, A. M., and A. Thakor, 2008, "Overconfidence, CEO Selection, and Corporate Governance", The Journal of Finance, 63, 2737-2784.

Graham, J., 1999, "Herding among investment newsletters: Theory and evidence", Journal of Finance, 54, 237-268.

Griffin, D., and A. Tversky, 1992, "The Weighing of Evidence and the Determinants of Confidence", Cognitive Psychology, 24, 411-435.

Grinblatt, M., and M. Keloharju, 2001, "How Distance, Language, and Culture Influence Stockholdings and Trades", The Journal of Finance, 56, 1053-1073.

Grinblatt, M., and M. Keloharju, 2009, "Sensation Seeking, Overconfidence, and Trading Activity", The Journal of Finance, 64, 549-578.

Hirshleifer, D., and G. Y. Luo, 2001, "On the survival of overconfident traders in a competitive securities market", Journal of Financial Markets, 4, 73-84.

Hong, J., and J. Stein, 1999, "A Unified theory of underreaction, momentum trading and overreaction in asset markets", Journal of Finance, 54, 2143-84.

Hou, K., D. Hirshleifer, and S. H. Teoh, 2007, "The accrual Anomaly: Risk or mispricing?", Munich Personal RePEc Archive.

Huberman, G., and W. Jiang, 2006, "Offering versus Choice in 401(K) Plans: Equity Exposure and Number of Funds", Journal of Finance, 61, 763–801.

Jegadeesh, N. and S. Titman, 2001a, "Momentum", University Of Illinois Working Paper.

Jegadeesh, N., and S. Titman, 2001b, "Profitability of Momentum Strategies: An Evaluation of Alternative Explanations", The Journal of Finance, 56, 699-720.

Jegadeesh, N., and S. Titman, 2002, "Cross sectional and time series determinants of momentum strategies", Review of Financial Studies, 15, 143-157.

Jiang, G., 2007, "Stock performance and the mispricing of accruals", The International Journal of Accounting, 42, 153-170.

Kahneman, D., J. L. Knetsch, and R. Thaler, 1990, "Experimental Tests of the Endowment Effect and the Coase Theorem", Journal of Political Economy, 98, 1325-1348.

Kahneman, D., J. L. Knetsch, and R. Thaler, 1991, "Anomalies: The Endowment Effect, Loss Aversion, and Status Quo Bias", The Journal of Economic Perspectives, 5, 193-206.

Kahneman, D., and A. Tversky, 1979, "Prospect Theory: An Analysis of Decisions Under Risk", Econometrica, 47, 263-291.

Kaniel, R., G. Saar, and S. Titman, 2008, "Individual Investor Trading and Stock Returns", The Journal of Finance, 63, 273-310.

Koszegi, B., and M. Rabin, 2009, "Reference-Dependent Consumption Plans", The American Economic Review, Vol. 99, No. 3 (Jun., 2009), pp. 909-936.

Kyle, A. S., and F. A. Wang, 1997, "Speculation Duopoly with Agreement to Disagree: Can Overconfidence Survive the Market Test?", The Journal of Finance, 52, 2073-2090.

Lakonishok, J., and E. Maberly, 1990, "The Weekend Effect: Trading Patterns of Individual and Institutional Investors", The Journal of Finance, 45, 231-43.

Lakonishok, J., A. Shleifer, and R. W. Vishny, 1992, "The Impact of Institutional Trading on Stock Prices", Journal of Financial Economics, 32, 23-43.

Lamont, O. A., and R. Thaler, 2003, "Anomalies: The Law of One Price in Financial Markets", The Journal of Economic Perspectives, 17, 191-203.

Lev, B., and D. Nissim, 2006, "The Persistence of the Accruals Anomaly", Contemporary Accounting Research, 23, 193-226.

Lewellen, J., 2010, "Accounting anomalies and fundamental analysis: An alternative view", Journal of Accounting and Economics, 50, 455-466.

Lopes, L. L., 1981, "Decision Making in the Short Run", Journal of Experimental Psychology: Human Learning and Memory, 7, 377-385.

Loewenstein, G., 1987, "Anticipation and the Valuation of Delayed Consumption", The Economic Journal, 97, 666-684.

Malmendier, U., and G. Tate, 2005a, "Does Overconfidence Affect Corporate Investment? CEO Overconfidence Measures Revisited", European Financial Management, 11, 649–659.

Malmendier, U., and G. Tate, 2005b, "CEO Overconfidence and Corporate Investment", Journal of Finance, 60, 2661-2700.

Mehra, R., and E. C. Prescott, 1985, "The Equity Premium: A Puzzle", Journal of Monetary Economics, 15, 145-161.

Moller, N., and S. Zilca, 2008, "The evolution of the January Effect", Journal of Banking & Finance, 32, 447–457.

Odean, T., 1998, "Are Investors Reluctant to Realize Their Losses?", Journal of Finance, 53, 1775-1798.

Odean, T., 1999, "Do Investors Trade Too Much?", American Economic Review, 89, 1279-1298.

Piazzesi, M., and M. Schneider, 2009, "Momentum Traders in the Housing Market: Survey Evidence and a Search Model", American Economic Review, 99, 406-411.

Rabin, M., 1998, "Psychology and Economics," Journal of Economic Literature, 36, 11-46.

Rabin, M., and G. Weizsacker, 2009, "Narrow Bracketing and Dominated Choices", The American Economic Review, 99, 1508-1543.

Rabin, M., and J. L. Schrag, 1999, "First Impressions Matter: A Model of Confirmatory Bias", The Quarterly Journal of Economics, 114, 37-82.

Rabin, M. and R. Thaler, 2001, "Anomalies: Risk aversion," Journal of Economic Perspectives, 15, 219-32.

Read, D., and B. Van Leeuwen, 1998, "Predicting Hunger: The Effects of Appetite and Delay on Choice", Organizational Behavior and Human Decision Processes, 76, 189–205.

Richardson, S., I. Tuna, and P. Wysocki, 2010, "Accounting anomalies and fundamental analysis: A review of recent research advances", Journal of Accounting and Economics, 50, 410-454.

Samuelson, P. A., 1963, "Risk and Uncertainty: A Fallacy of Large Numbers", Scientia, 98, 108-113.

Shapira, Z., and I. Venezia, 2001, "Patterns of Behavior of Professionally Managed and Independent Investors", Journal of Banking and Finance, 25, 1573-87.

Shefrin, H., and M. Statman, 1985, "The Disposition to Sell Winners Too Early and Ride Losers Too Long: Theory and Evidence", Journal of Finance, 40, 777-90.

Shiller, R., 1981, "Do Stock Prices move too much to be justified by subsequent changes in dividends?", American Economic Review, 71, 421-436.

Shleifer, A., and R. W. Vishny, 1997, "The Limits of Arbitrage", The Journal of Finance, 52, 35-55.

Tversky, A., and M. Bar-Hillel, 1983, "Risk: The Long and the Short", Journal of Experimental Psychology: Learning, Memory, and Cognition, 9, 713-717.

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Tversky, A., and D. Kahneman, 1986, "Rational Choice and the Framing of Decisions", The Journal of Business,59, Part 2: The Behavioral Foundations of Economic Theory (Oct., 1986), pp. S251-S278.

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Venezia, I., and Z. Shapira, 2007, "On the Behavioral Differences between Professional and Amateur Investors after the Weekend", Journal of Banking and Finance, 31, 1417-1426.

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Wang, F. A., 2001, "Overconfidence, Investor Sentiment, and Evolution", Journal of Financial Intermediation, 10, 138-170.

Welch, I., 2000, "Herding Among Security Analysts", Journal of Financial Economics, 58, 369-396.

Wu, J. G., L. Zhang, and X. F. Zhang, 2007, "Understanding the accrual anomaly", Working Paper, National Bureau of Economic Research.