

# FIN 570 Behavioral Finance Module 4, 2015-2016

### **Course Information**

### Instructor: Domenico TARZIA

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#### Classes:

Lectures: Monday-Thursday, 10:30-12:20 Venue: PHBS Building, Room 319

*Course Website:* <a href="http://cms.phbs.pku.edu.cn/index.php">http://cms.phbs.pku.edu.cn/index.php</a>

### **1.** Course Description

### 1.1 Context

#### **Course overview:**

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 behavioural 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.

#### **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.

### 1.2 Textbooks and Reading Materials

#### **Required textbook:**

Mas-Colell, Andreu, Whinston, Michael, and Jerry Green, "Microeconomic theory", Oxford University Press; 1 edition, 1995 (MWG). ISBN-10: 0195073401, ISBN-13: 978-0195073409. Cochrane, John, "Asset Pricing", Princeton University Press, 2005 (C). ISBN-10: 0691121370, ISBN-13: 978-0691121376.

#### Additional readings and material:

The instructor will post additional material on the course management system (CMS). The course name is "Behavioral Finance", the code is "BEHFIN2016".

### 2. Learning Outcomes

### 2.1 Intended Learning Outcomes

Learning Goals	Objectives	Assessment
1. Our graduates will be effective	1.1. Our students will produce quality business and research-oriented documents.	Х
communicators.	1.2. Students are able to professionally present their ideas and also logically explain and defend their argument.	Х
2. Our graduates will be skilled in team work and leadership.	2.1. Students will be able to lead and participate in group for projects, discussion, and presentation.	X
	2.2. Students will be able to apply leadership theories and related skills.	
<ol> <li>Our graduates will be trained in ethics.</li> </ol>	3.1. In a case setting, students will use appropriate techniques to analyze business problems and identify the ethical aspects, provide a solution and defend it.	
	3.2. Our students will practice ethics in the duration of the program.	Х
<ol> <li>Our graduates will have a global perspective.</li> </ol>	4.1. Students will have an international exposure.	X
5. Our graduates will be skilled in problem- solving and critical	<ol> <li>5.1. Our students will have a good understanding of fundamental theories in their fields.</li> </ol>	X
thinking.	5.2. Our students will be prepared to face problems in various business settings and find solutions.	
	5.3. Our students will demonstrate competency in critical thinking.	x

### 2.2 Course specific objectives

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.

### 2.3 Assessment/Grading Details

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.

### 2.4 Academic Honesty and Plagiarism

It is important for a student's effort and credit to be recognized through class assessment. Credits earned for a student work due to efforts done by others are clearly unfair. Deliberate dishonesty is considered academic misconducts, which include plagiarism; cheating on assignments or examinations; engaging in unauthorized collaboration on academic work; taking, acquiring, or using test materials without faculty permission; submitting false or incomplete records of academic achievement; acting alone or in cooperation with another to falsify records or to obtain dishonestly grades, honors, awards, or professional endorsement; or altering, forging, or misusing a University academic record; or fabricating or falsifying of data, research procedures, or data analysis.

All assessments are subject to academic misconduct check. Misconduct check may include reproducing the assessment, providing a copy to another member of faculty, and/or communicate a copy of this assignment to the PHBS Discipline Committee. A suspected plagiarized document/assignment submitted to a plagiarism checking service may be kept in its database for future reference purpose.

Where violation is suspected, penalties will be implemented. The penalties for academic misconduct may include: deduction of honour points, a mark of zero on the assessment, a fail grade for the whole course, and reference of the matter to the Peking University Registrar.

For more information of plagiarism, please refer to *PHBS Student Handbook*.

## 3. Topics, Teaching and Assessment Schedule

Day	Торіс
Part I	Foundations of Behavioral Economics and Finance
April 28	Introduction to the Class
	Introduction to Behavioral Economics and Finance
May 2	Expected Utility Theory:
	Paradoxes Challenging Expected Utility Theory
May 5	Nonstandard Preferences:
	Time Preferences
	Social Preferences
May 9	Risk Preferences:
	Prospect Theory
May 12	Nonstandard Beliefs:
	The Quasi-Bayesian Approach
May 16	Nonstandard Decision Making:
	The Quasi-Maximization Approach
Part II	Specific Topics in Behavioral Finance
Part II May 19	Specific Topics in Behavioral Finance Loss Aversion:
Part II May 19	Specific Topics in Behavioral Finance         Loss Aversion:         • The Equity Premium Puzzle
Part II May 19 May 23	Specific Topics in Behavioral Finance         Loss Aversion:         • The Equity Premium Puzzle         Disposition Effect
Part II           May 19           May 23           May 26	Specific Topics in Behavioral Finance         Loss Aversion:         • The Equity Premium Puzzle         Disposition Effect         Midterm Exam
Part II           May 19           May 23           May 26           May 30	Specific Topics in Behavioral Finance         Loss Aversion:         • The Equity Premium Puzzle         Disposition Effect         Midterm Exam         Overconfidence. Irrational Investors
Part II           May 19           May 23           May 26           May 30           June 2	Specific Topics in Behavioral Finance         Loss Aversion:         • The Equity Premium Puzzle         Disposition Effect         Midterm Exam         Overconfidence. Irrational Investors         Overconfidence. Irrational Managers
Part II           May 19           May 23           May 26           May 30           June 2           June 6	Specific Topics in Behavioral Finance         Loss Aversion:         • The Equity Premium Puzzle         Disposition Effect         Midterm Exam         Overconfidence. Irrational Investors         Overconfidence. Irrational Managers         Herding
Part II May 19 May 23 May 26 May 30 June 2 June 6 June 8	Specific Topics in Behavioral FinanceLoss Aversion:• The Equity Premium PuzzleDisposition EffectMidterm ExamOverconfidence. Irrational InvestorsOverconfidence. Irrational ManagersHerdingThe Individual Investor
Part II         May 19         May 23         May 26         May 30         June 2         June 6         June 8         June 13	Specific Topics in Behavioral FinanceLoss Aversion:• The Equity Premium PuzzleDisposition EffectMidterm ExamOverconfidence. Irrational InvestorsOverconfidence. Irrational ManagersHerdingThe Individual InvestorUnder-reaction and Over-reaction
Part II May 19 May 23 May 26 May 30 June 2 June 6 June 6 June 13 June 16	Specific Topics in Behavioral FinanceLoss Aversion:• The Equity Premium PuzzleDisposition EffectMidterm ExamOverconfidence. Irrational InvestorsOverconfidence. Irrational ManagersHerdingThe Individual InvestorUnder-reaction and Over-reactionCalendar and Seasonal Effects
Part II         May 19         May 23         May 26         May 30         June 2         June 6         June 13         June 16         June 20	Specific Topics in Behavioral FinanceLoss Aversion:• The Equity Premium PuzzleDisposition EffectMidterm ExamOverconfidence. Irrational InvestorsOverconfidence. Irrational ManagersHerdingThe Individual InvestorUnder-reaction and Over-reactionCalendar and Seasonal EffectsAccounting Anomalies
Part II         May 19         May 23         May 26         May 30         June 2         June 6         June 13         June 16         June 20         June 23	Specific Topics in Behavioral FinanceLoss Aversion:• The Equity Premium PuzzleDisposition EffectMidterm ExamOverconfidence. Irrational InvestorsOverconfidence. Irrational ManagersHerdingThe Individual InvestorUnder-reaction and Over-reactionCalendar and Seasonal EffectsAccounting AnomaliesLimits to Arbitrage
Part II         May 19         May 23         May 26         May 30         June 2         June 6         June 13         June 16         June 20         June 23         June 27	Specific Topics in Behavioral FinanceLoss Aversion:• The Equity Premium PuzzleDisposition EffectMidterm ExamOverconfidence. Irrational InvestorsOverconfidence. Irrational ManagersHerdingThe Individual InvestorUnder-reaction and Over-reactionCalendar and Seasonal EffectsAccounting AnomaliesLimits to ArbitrageFinancial Crises

### Preliminary Course Schedule

#### 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) **Expected Utility Theory. Paradoxes Challenging Utility Theory:** (\*) Rabin and Thaler, 2001.
- 3) **Nonstandard Preferences. Time Preferences. Social Preferences:** Charness and Rabin 2002; (\*) Frederick, Loewenstein, and O'Donoghue, 2002
- Risk Preferences. Prospect Theory: Kahneman, Knetsch and Thaler, 1990; (\*) Kahneman, Knetsch and Thaler, 1991; (\*) Kahneman and Tversky, 1979; Tversky and Kahneman, 1991.
- Nonstandard Beliefs. The Quasi-Bayesian Approach: (\*) Benartzi, and Thaler, 1999, Darley and Gross, 1983; (\*) Griffin and Tversky, 1992; (\*) Samuelson, 1963; (\*) Tversky and Kahneman, 1971.
- Nonstandard Decision Making. The Quasi-Maximization Approach: Rabin and Weizsacker, 2009; (\*) Redelmeier and Tversky, 1992; (\*) Tversky and Kahneman, 1986.
- 7) Loss Aversion. The Equity Premium Puzzle: (\*) Barberis, Huang and Santos, 2001; (\*) Benartzi and Thaler, 1995; (\*) Mehra and Prescott, 1985.
- 8) **The Disposition Effect**: (\*) Odean, 1998; (\*) Shapira and Venezia, 2001; (\*) Shefrin and Statman, 1985.
- 9) Midterm Evaluation.
- 10) **Overconfidence. Irrational Investors:** (\*) Barber and Odean, 2000; Barber and Odean 2001; (\*) Grinblatt and Keloharju, 2009; Odean, 1999.
- 11) **Overconfidence. Irrational Managers:** (\*) Malmendier and Tate, 2005a; Malmendier and Tate, 2005b; (\*) Malmendier and Tate, 2008; Malmendier, Tate, and Yan, 2011.
- 12) **Herding**: (\*) Bikhchandani and Sharma, 2000; (\*) Chiang and Zheng, 2010; Grinblatt, Titman, and Wermers, 1995; Lakonishok, Shleifer, and Vishny, 1992; (\*) Venezia, Nashikkar, and Shapira, 2011.
- 13) **The Individual Investor**: Barber and Odean, 2011; Griffin, Harris and Topaloglu, 2003; (\*) Kaniel, Saar and Titman, 2008.
- 14) **Underreaction and Overreaction:** Barberis, Shleifer and Vishny, 1998; De Bondt, and Thaler, 1985; Jegadeesh and Titman, 2001.
- 15) Calendar and Seasonal Effects: Doyle and Chen, 2009; (\*) Moller and Zilca, 2008;
  (\*) Venezia and Shapira, 2007.
- 16) **Accounting Anomalies**: (\*) Bernard and Thomas, 1989; Collins and Hribar, 2000; Lev and Nissim, 2006; Livnat and Petrovits, 2009; (\*) Sloan, 1996.
- 17) **Limits to Arbitrage**: De Long, Shleifer, Summers and Waldmann, 1990; Shleifer and Vishny, 1997.
- 18) **Financial Crises**: De Long, Shleifer, Summers and Waldmann, 1990; Shleifer and Vishny, 1997.

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:**

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

Baker, M., and J. Wurgler, 2007, "Investor Sentiment in the Stock Market", Journal of Economic Perspectives, 129-151.

(\*) 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.

(\*) Barberis, N., Huang M., and T. Santos, 2001, "Prospect theory and asset prices", Quarterly Journal of Economics, 116, 1-53.

Barberis, N., Shleifer, A. and R. Vishny, 1998, "A Model of Investor Sentiment", Journal of Financial Economics, 49, 307-343.

(\*) 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.

(\*) Bernard, V. L., and J. K. Thomas, 1989, "Post-earnings-announcement drift: delayed price response or risk premium?", Journal of Accounting Research, 27, 1–48.

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

Charness, G., and M. Rabin, 2002, "Understanding Social Preferences with Simple Tests", The Quarterly Journal of Economics, 117, 3, 817-869. Chauvin, K., Laibson, D. and J. Mollerstrom, 2011, "Asset Bubbles and the Cost of Economic Fluctuations", Journal of Money, Credit and Banking, 233-260.

(\*) 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.

Collins, D., and P. Hribar, 2000, "Earnings-based and accrual-based market anomalies: one effect or two?", Journal of Accounting and Economics, 29, 101–123.

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

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.

(\*) 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.

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

(\*) Frederick, S., G. Loewenstein, and T. O'Donoghue, 2002, "Time discounting and time preference: A critical review", Journal of Economic Literature, 40, 351–401.

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

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

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

Griffin, J. M., Harris, J. H., and S. Topaloglu, 2003, "The dynamics of institutional and individual trading", The Journal of Finance, 58, 2285-2320.

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

Grinblatt, M., Titman S., and R. Werners, 1995, "Momentum Investment Strategies, Portfolio Performance and Herding: A Study of Mutual Fund Investors", The American Economic Review, 85, 1088-1105.

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

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.

Laibson, D. and J. Mollerstrom, 2010, "Capital Flows, Consumption Booms and Asset Bubbles: A Behavioural Alternative to the Savings Glut Hypothesis", The Economic Journal, 354-374.

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

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

Livnat, J., and C. Petrovits, 2009, "Investor sentiment, post earnings announcement drift, and accruals", Unpublished working paper, New York University.

(\*) Malmendier, U., and G. Tate, 2005a, "CEO Overconfidence and Corporate Investment", Journal of Finance, 60, 2661-2700.

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

(\*) Malmendier, U., and G. Tate, 2008, "Who makes acquisitions? CEO overconfidence and the market's reaction", Journal of Financial Economics, 89, 20-43.

Malmendier, U., Tate, G., and J. Yan, 2011, "Overconfidence and Early-Life Experiences: The Effect of Managerial Traits on Corporate Financial Policies", The Journal of Finance, 66, 1687-1733.

(\*) 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.

(\*) 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 R. Thaler, 2001, "Anomalies: Risk aversion," Journal of Economic Perspectives, 15, 219-32.

(\*) Redelmeier, D. A., and A. Tversky, 1992, "On the Framing of Multiple Prospects", Psychological Science, 3, 191-93.

(\*) 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.

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

(\*) Sloan, R., 1996, "Do stock prices fully reflect information in accruals and cash flows about future earnings?", The Accounting Review, 71, 289–316.