

BEHAVIORAL FINANCE

Syllabus

Faculty:Economics
Year: 2019/20
Course name:Behavioral Finance
Level: Master, 1Y
Language of instruction: English
Period: 1-2 Modul
Workload: 36 hours of classes
Credits: 5

Extended course name: Behavioral Finance
Short name: BEHF

I. Course Description

During several decades financial theories have been guided by efficient markets theory. The key assumption of the major financial models is the rational behaviour of investors and other agents. But in reality this assumption is regularly being broken. Markets are often inefficient. Information disclosure is expensive. Sunny weather or upcoming vacations may change the investors' behaviour and bias their decisions. Each investment decision depends on our previous investment decisions: we are anchored. We do not live in vacuum.

Behavioural biases attracted the attention of the academia and investors' world in late 1990s. The key question was whether these biases from the rational behaviour might have significant impact over market estimations and investment decisions. Empirical tests demonstrate that behavioural biases may significantly change even classical asset pricing models. Several bestsellers were written on the behavioural finance issues during 2000s. CFA curriculum part devoted to behavioural finance becomes larger and larger every year. Behavioural biases do matter. So, if you want to be successful as a portfolio manager or individual investor, as a CFO or independent director and of course as a consultant, you should take into account different behavioural biases.

Based on key concepts of cognitive psychology decision theory, behavioural finance studies how real-life investors interpret and act on available information. This course is a finance course of advanced level.

The *key goal of this course* is to provide the student with sufficient knowledge to understand difference between the classical financial theory and behavioural finance. The course is focused on the specific features of decision-making process in a market that is not strongly efficient.

To follow this course the course of corporate finance is a *prerequisite*.

Course Objectives

After the course student will know:

- Bounded rationality concept;
- main assumptions and ideas of prospect theory;
- theoretical and empirical foundations and challenges to the efficient market hypothesis;
- key behavioral biases of individual and professional investors;
- key anomalies in the markets proving the behavioral biases;
- key behavioral biases of top managers.

After the course student will be able to:

- compare expected utility theory with the prospect theory;
- explain and demonstrate using empirical data the challenges to the efficient market hypothesis;
- explain the nature and forecast the consequences of key behavioral biases of investors;
- Describe the process of behavioral biases contribution to the asset prices models;
- Describe how behavioral biases of managers affect the decision-making process in a corporation.

Teaching method: Lectures/ seminars

Assessment: paper presentations, case study, an essay, final research paper

Prerequisites: Corporate Finance course, Microeconomics course

Course Teachers and Contact Details: Assist. Prof. Anastasia Stepanova,
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Office hours: tbd. The office hours are available at the door of Corporate Finance Center and in my personal information on hse.ru.

Reading Material:

Reading material consists of 3 key books and a large number of articles from top finance journals (the list by topics is provided below).

1. Ackert, Deaves. Behavioral Finance: Psychology, Decision-Making, and Markets. Cengage Learning; 1 edition, 2010.
2. Shleifer, Andrei (2000). Inefficient Markets: An Introduction to Behavioral Finance. Oxford, UK: Oxford University Press.
3. HershShefrin, (2000) Beyond Greed and Fear, Harvard Business School Press.

II. Course placement

This course is a new one for HSE. This course is one of a few courses in behavioral finance available offline in Russian educational market. In contrast with the major courses available in Moscow (e.g. in Skolkovo) this course contains theoretical foundations of behavioral finance in line with the empirical ideas and experiments.

That is important for a potential student to realize that the course contains quite intensive self-study component. It includes reading, writing and research. You should be ready to devote enough time to the course.

Preliminary schedule

N	Topic	Hours per topic	Lecture, hours	Seminar, hours	Self-study
1	Behavioral finance: introduction	28	4	4	20
2-3	Efficient market hypothesis	28	8	8	12
4	Failing EMH. Evidence of motivating phenomena	36	4	4	28
5	Behavioral economics and finance: prospect theory and asset pricing	26	4	4	18
6-7	Heuristics and behavioral biases of investors	28	4	4	20
8-9	Behavioral corporate finance	28	4	4	20
10	Demonstrating behavioral biases in action: Empirical evidence from emerging markets	16	0	4	12
	Totally	190	28	32	130

III. Course outline

Class 1. Behavioral finance: introduction.

Psychology and market people. Investors, portfolio managers, analysts: are they rational? Bounded rationality in real market conditions. Decision-making process and behavioral biases. Simple experiments on anchoring.

Basic literature:

Shleifer, Andrei (2000). *Inefficient Markets: An Introduction to Behavioral Finance*. Oxford, UK: Oxford University Press.
 Kahneman, D. and Tversky, A. (1984). "Choices, Values, and Frames". *American Psychologist* 39 (4): 341–350.
 HershShefrin, (2000) *Beyond Greed and Fear*, Harvard Business School Press.

Additional literature:

Richard Thaler, (1991) *Quasi-Rational Economics*, Russell Sage Foundation Press.
 Gary Belsky and Thomas Gilovich, (1999) *Why Smart People Make Big Money Mistakes*, Simon and Schuster.
 Daniel Kahneman, Paul Slovic, and Amos Tversky (eds.). (1982) *Judgment under Uncertainty: Heuristics and biases*, Oxford; New York: Oxford University Press.
 Kahneman, D.; Tversky, A. (1979). "Prospect Theory: An Analysis of Decision under Risk". *Econometrica* 47 (2): 263–291.
 CFA Level 3 Schweser Notes, 2014.

Class2-3. Efficient market hypothesis (by Fama).

Theoretical foundations of efficient market hypothesis (EMH). 3 steps of efficient market hypothesis. Rational investors. Irrational investors: number and the correlation of trading strategies. The case with correlated trading strategies: arbitrage & close substitutes. The future of irrational investors.

Empirical tests of efficient market hypothesis. Testing quick and correct price reactions to the news. Testing no reaction of asset prices to no news. The value of stale information. 3 forms of EMH.

First glance proofs of insider trade. Making money on insiders' information (Seyhun, 1998). How to test the semi-strong form of EMH? Event-study as one of the key tests of price reaction to news. Price trends and reversals according to semi-strong form of EMH. Testing the absence of significant reaction to non-news (Scholes, 1972). Price reaction to block sales. Substitution effect.

Basic literature:

Shleifer, Andrei (2000). *Inefficient Markets: An Introduction to Behavioral Finance*. Oxford, UK: Oxford University Press.

Fama, E. F. (1970). Efficient capital markets: a review of theory and empirical work. *Journal Of Finance*, 25(2), 383-417.

Fama, E. F. (1991). Efficient Capital Markets: II. *Journal of Finance*, 46(5), 1575-1617.

Additional literature:

Fama, E. F. (1965). Tomorrow on the New York stock exchange. *Journal of Business*, 38(3), 285-299.

Fama, Eugene F, et al, 1969. "The Adjustment of Stock Prices to New Information," *International Economic Review*, 10 (1), 1-21.

Friedman, Milton, 1953. *Essays in Positive Economics*, Chicago.

KEOWN, ARTHUR J. and JOHN M. PINKERTON. (1981). Merger Announcements and Insider Trading Activity: An Empirical Investigation. *The Journal of Finance*, 36.

Scholes, Myron S, 1972. "The Market for Securities: Substitution versus Price Pressure and the Effects of Information on Share Prices," *The Journal of Business*, University of Chicago Press, vol. 45(2), pages 179-211, April.

Seyhun, H. (1998). Inside Information. *Financial Planning*, 28(11), 114.

Class4. Failing EMH. Evidence of motivating phenomena.

Theoretical challenges to the EMH. Empirical challenges to EMH. Insider information and corporate scandals. Return predictability in the stock markets. Seasonal anomalies. January effect. Common risk factors in the returns on stocks and bonds (Fama and French, 1993). Stock prices overreaction and correction (De Bondt et al., 1985; Stein, 1989). Orange juice and weather by Roll (1984).

Basic literature:

Ackert, Deaves. *Behavioral Finance: Psychology, Decision-Making, and Markets*. Cengage Learning; 1 edition, 2010.

HershShefrin, (2000) *Beyond Greed and Fear*, Harvard Business School Press.

Shleifer, Andrei (2000). *Inefficient Markets: An Introduction to Behavioral Finance*. Oxford, UK: Oxford University Press.

Fama, Eugene F.; French, Kenneth R. "The Corporate Cost of Capital and the Return on Corporate Investment," *Journal of Finance*. Dec 1999, Vol. 54 Issue 6, p1939-1967.
De Bondt, W. F. M. and Thaler, R. (1985), Does the Stock Market Overreact? *The Journal of Finance*, 40: 793–805.

Additional literature:

Diz, F. and Finucane, T. J. (1993), Do the options markets really overreact? *J. Fut. Mark.*, 13:299–312.

Roll, Richard, (1984), Orange juice and weather // *The American Economic Review*, 74 (5), pp. 861-880.

Stein, Jeremy, (1989), Overreactions in the Options Market // *The Journal of Finance*, 44, 1011-1023.

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

Lakonishok, Josef, Andrei Shleifer, and Robert W. Vishny, 1994, -Contrarian investment, extrapolation, and risk, *Journal of Finance* 49(5), 1541-1578.

Class5. Behavioral economics and finance: prospect theory and asset pricing.

Prospect theory (Kahneman, Tversky). Bounded rationality. Expected Utility theory vs. prospect theory. Probability weighing function: $\pi(p)$ instead of p . What does the introduction of the weighing function mean? The weight of small probabilities. Lotteries as an example of overweighted probability. The weight of large probabilities. Parametrization of utility function. Risk-taking behavior. Endowment effect: experiments. Sentiment and asset pricing.

Basic literature:

Shleifer, Andrei (2000). *Inefficient Markets: An Introduction to Behavioral Finance*. Oxford, UK: Oxford University Press.

Kahneman, D. and Tversky, A. (1984). "Choices, Values, and Frames". *American Psychologist* 39 (4): 341–350.

Kahneman, D.; Tversky, A. (1979). "Prospect Theory: An Analysis of Decision under Risk". *Econometrica* 47 (2): 263–291.

Baker, Malcolm and Jeffrey Wurgler, 2006, -Investor sentiment and the cross-section of stock returns, *Journal of Finance* 61(4), 1645-1679.

Additional literature:

Barberis, Nicholas, Ming Huang and Tano Santos. "Prospect Theory And Asset Prices," *Quarterly Journal of Economics*, 2001, v116(1, Feb), 1-53.

Lakonishok, Josef, Andrei Shleifer, and Robert W. Vishny, 1994, -Contrarian investment, extrapolation, and risk, *Journal of Finance* 49(5), 1541-1578.

Tversky, D.; Kahneman (1991). "Loss Aversion in Riskless Choice: A Reference Dependent Model". *Quarterly Journal of Economics* 106 (4): 1039–1061.

Class6-7. Heuristics and behavioral biases of investors.

The most popular bias in day-to-day discussion: Anchoring bias. Limited attention, storing and retrieving information, availability bias. Familiarity bias (Health & Tversky, 1991). Risk preference, framing bias. Mental accounting (Tversky & Kahnemann, 1992). Representativeness (Tversky & Kahnemann, 1974). Ambiguity aversion (Ellsberg, 1961). Overconfidence and excessive trading (Griffin & Tversky, 1992). The analysis of potential consequences.

Basic literature:

Ackert, Deaves. Behavioral Finance: Psychology, Decision-Making, and Markets. Cengage Learning; 1 edition, 2010.

HershShefrin, (2000) Beyond Greed and Fear, Harvard Business School Press.

Shleifer, Andrei (2000). Inefficient Markets: An Introduction to Behavioral Finance. Oxford, UK: Oxford University Press.

Heath, C., &Tversky, A. (1991). Preference and belief: Ambiguity and competence in choice under uncertainty. *Journal of Risk and Uncertainty*, 4, 5–28.

Tversky, D.; Kahneman. (1974). Judgment under Uncertainty: Heuristics and Biases // *Science* 27: 185 (4157), 1124-1131.

CFA Level 3 Schweser Notes, 2014.

Additional literature:

Ellsberg, D. (1961). Risk, ambiguity, and the Savage axioms. *Quarterly Journal of Economics*, 75, 643–669.

Cronqvist, H., Siegel, S. (2014) The genetics of investment biases // *Journal of Financial Economics* 113, pp. 215-234.

Kaustia, Markku and SamuliKnüpfer, 2008, -Do investors overweight personal experience? Evidence from IPO subscriptions//, *Journal of Finance* 63(6), 2679-2702.

Class8-9. Behavioral corporate finance.

The decision-making process in reality. First level: rational managers. Managerial financing and investment decisions as rational responses to securities market mispricing.

Second level: less than rational managers. Behavioral biases of managers. Capital structure choice: behavioral aspects. Investment policy: real investments and M&A deals.

Basic literature:

Ackert, Deaves. Behavioral Finance: Psychology, Decision-Making, and Markets. Cengage Learning; 1 edition, 2010.

HershShefrin, (2000) Beyond Greed and Fear, Harvard Business School Press.

Shleifer, Andrei (2000). Inefficient Markets: An Introduction to Behavioral Finance. Oxford, UK:Oxford University Press.

Additional literature:

Baker, Malcolm, and Jeffrey Wurgler, 2000 , -The equity share in new issues and aggregate stock returns//, *Journal of Finance* 55(5), 2219-2257.

Barberis, Nicholas &Thaler, Richard, 2003. "A survey of behavioral finance," *Handbook of the Economics of Finance*, in: G.M. Constantinides& M. Harris & R. M. Stulz (ed.), *Handbook of the Economics of Finance*, edition 1, volume 1, chapter 18, pages 1053-1128 Elsevier.

Malmendier, Ulrike, and Geoffrey Tate, 2008, -Who makes acquisitions? CEO overconfidence and the market's reaction//, *Journal of Financial Economics* 89(1), 20-43.

Savor, Pavel G. and Qi Lu, 2009, -Do stock mergers create value for acquirers?//, *Journal of Finance* 64(3), 1061-1097.

Class 10.Demonstrating behavioral biases in action: Empirical evidence from emerging markets.

Presentation of the research projects of the students [obligatory activity].

Preliminary list of presentation topics:

1. Inside Information following Seyhun, 1998.
2. The Irrationality Illusion: A New Paradigm for Economics and Behavioral Economics
3. The Effect of Word-of-Mouth Communication on Stock Holdings and Trades: Empirical Evidence From an Emerging Market.
4. The New York Times and Wall Street Journal: Does Their Coverage of Earnings Announcements Cause –Stale News to Become –New News?
5. Personality following Durand et al., 2013.
6. Investor Rationality and Financial Decisions following Cohen & Kudryavtsev, 2012
7. Do the options markets really overreact?
8. Does Prospect Theory Explain the Disposition Effect?
9. Testing Alternative Theories of Financial Decision Making: A Survey Study With Lottery Bonds.
10. Risk Aversion and Personality Type following Filbeck et al., 2010.
11. The genetics of investment biases.
12. Investor Optimism, False Hopes and the January Effect.
13. The Influence of Gender on the Perception and Response to Investment Risk: The Case of Professional Investors.
14. Prior Perceptions, Personality Characteristics and Portfolio Preferences among Fund Managers: An Experimental Analysis
15. Influencing Financial Behavior: From Changing Minds to Changing Contexts.
16. The Less You Know, the More You Are Afraid of—A Survey on Risk Perceptions of Investment Products.
17. Do investors overweight personal experience? Evidence from IPO subscriptions.
18. Investor sentiment and the cross-section of stock returns.
19. Who makes acquisitions? CEO overconfidence and the market’s reaction.
20. Do stock mergers create value for acquirers?

List of self-control questions:

What is the difference between expected utility and prospect theories?

Describe the three steps of efficient market hypothesis. How it deals with rational investors?

How it deals with irrational investors?

Does efficient market hypothesis work if in case of correlated trading strategies? Explain the conditions.

How to test the semi-strong form of efficient market hypothesis?

What are the key phenomena challenging the efficient market hypothesis?

Which seasonal anomalies do you know?

What are the most popular behavioral biases for individual investors?

Check whether you understand and can explain the nature of the following behavioral biases:

- Anchoring bias
- Familiarity bias
- Representativeness bias
- Mental accounting
- Framing bias
- Availability bias

- Overconfidence bias

Try to describe the potential consequences of every bias.

Which corporate decisions are mostly affected by behavioral biases of top managers? Why?

Propose the way how CEO overconfidence may influence M&A deals.

Benchmarking topics for the final paper:

1. Demonstrating anchoring bias of local investors in post-crisis conditions in Argentina.
2. Does a typical Russian investor demonstrate familiarity bias? Underreaction tests in 2010.
3. Do investors on MICEX overweight personal experience? Evidence from IPO subscriptions.
4. The effect of professional education on the significance of managers' behavioral biases.
5. Testing the semi-strong form of efficient market hypothesis in post-crisis BRICS markets.

IV. Grading

Your grade will be based on papers presentations (30%), a case study or an essay (20%) and final research paper (50%).

You should work individually on papers presentations, in teams of 3-4 on the case study and in pairs (or individually if you prefer) on your final research papers.

The paper presentations are held during the whole course at the beginning of every class. The preliminary topics of the presentations are listed above. Every presentation is based on one paper from a peer-reviewed journal. The schedule of presentations will be discussed in class during the first week of the course. Every student should make 2 presentations during the course.

A final research paper is an empirical research paper you should prepare individually or in pairs. You are free to choose a topic that is of interest for you but you should get an approval of your topic with the professor before you start working over the paper. The topic should be approved by November, 15. The paper is due to the last class before exam (the date tbd). The paper should be prepared in the format of a paper in the Journal of Behavioral Finance.