

BEHAVIORAL FINANCE - FNCE 739 (FNCE 239)

- Term:** Spring 2013
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- TA office hours:** A total of 2 x 1.5h per week, times TBA. Contact Ian Appel ianappel@wharton.upenn.edu, Di (Andrew) Wu wudi1@wharton.upenn.edu, and Viren Kumar virenk@wharton.upenn.edu for consultation on course concepts, readings, and assignments.
- Prerequisites:** Required: FNCE 611 (FNCE 100)
Recommended: FNCE 720, FNCE 726 (FNCE 203, FNCE 205)

1. OVERVIEW

Behavioral finance is an approach to understanding financial phenomena that models decision-makers as less than perfectly rational actors. In trying to understand the specific ways in which behavior departs from full rationality, behavioral finance incorporates important findings from other social sciences, such as psychology. A collection of empirical facts about financial asset prices and returns that seem anomalous from the perspective of full rationality and efficient markets has been an important impetus to this approach. The question of market efficiency is therefore central in behavioral finance.

The idea that markets may not always value assets correctly is accepted in this approach. The origins and the development of such mispricing is a topic of study. Nevertheless, behavioral finance is generally agnostic regarding (though not categorically denying) the possibility that investors could consistently utilize misvaluations to earn sustainable abnormal returns.

This course covers the micro-foundations of investor behavior, as well as the resulting macro implications for financial markets. These ideas are applicable in the realms of financial products and services design, asset management, and corporate finance.

2. FOR PROSPECTIVE STUDENTS TO CONSIDER

Prospective students should carefully consider the following issues when deciding whether to take the course. If you are uncomfortable with any of these issues, this course may not be for you.

Cost and availability of materials

- Course readings mostly consist of scientific articles (see Section 7 for a list, and the class schedule in section 6 for linking these articles to course topics).
- A course pack consisting of these articles as well as cases is available through *study.net* and linked to Canvas. The cost for undergraduate students (this does not apply to MBA students) is \$19.75. The pack has about 750 pages.

- The supplementary textbook (see Section 5) sells for \$46.65 at the Penn bookstore. The price is \$35 for used, and \$21.40 for an electronic copy that expires in six months. The publisher tells me that the electronic copy allows you to print 10 pages at a time. The book has about 120 pages.

Course features and policies

- The workload is quite heavy (see below for assignments and readings).
- Many of the assignments call for qualitative analysis and judgment, and often do not have a single correct answer. The assignments are nevertheless graded for quality, as reflected in the clarity of writing, originality of thought, and careful execution. All re-grade requests must be made in writing within one week of the day the assignment/exam is returned. Re-grading a part of an assignment can lead to a complete re-grading.
- The course involves quantitative analysis and some math. The demands are well within the bounds of the material that has been covered in earlier courses. However, you probably should not take this course if you have a particular aversion to quantitative analysis. Incorporating psychology to finance does not mean abandoning quantitative methods.
- The assignments call for creative problem-solving and independent information acquisition. Be prepared to encounter concepts and issues in the assignments that we have not yet covered in class at that time. The point of the assignments is to create independent discovery and learning while doing them, not replicating what was already shown in class.
- Correspondence by e-mail: Due to the large number of students I teach, I will unfortunately not be able to provide lengthy explanations, or hold tutorial sessions by e-mail. Please use office hours, review sessions, or TA office hours for that purpose.
- Laptop policy. You are only allowed to use laptop and slate computers for following what is being covered in class and taking notes, provided that this does not distract you or others.

3. REQUIREMENTS AND GRADE COMPONENTS

Breakup of available points:

- Written assignments 60% (see below for further information)
- Final exam 35%. The exam covers all course material. This includes lectures, cases, and the material listed in the readings –section of this syllabus. There is no makeup exam.
- Class activity 5%.

4. ASSIGNMENTS

Teams. Up to four students per team. The group can, but it does not have to, change between the assignments. Note: the homework problem sets are individual work, other assignments are teamwork.

Turn in: All group assignments are turned in using Canvas. The individual homework assignments are turned in as hard copy to the teaching assistants.

Format: Please use the Microsoft Word template available at the course webpage for each assignment, and adhere to the given maximum page limits (without tinkering with the margins, font size, etc.). Go to Files - Resources under the course Canvas site to find this Word template.

Due dates and time: You will find codes such as ‘HW 1’ or ‘C1’ in connection to the assignments below. Locate those in the class schedule table to see the due dates. When an assignment is due on a particular date it must be turned in **by 8:30AM that day.**

Homework, 10% credit available

Problem sets (HW 1, HW 2) are turned in as individual work. NOTE: turn in as hard copy.

Case write-ups, 30% credit available

Case assignment questions will be provided later. Total credit available will be approximately - but not quite exactly - evenly distributed across the cases. The following cases are covered:

- Rudy Wong, Investment Advisor (C1)
- Dimensional Fund Advisors (DFA)'s Entry into the Retirement Market (C2)
- Selling Biovail Short (C3)
- Opportunity Partners (C4)
- Livedoor (C5)

Format: Max. 3 pages per case. Use the Microsoft Word template from the class web site.

Business application, 10% credit available (A1)

The assignment

Analyze a behavioral aspect of a financial product, service, corporate finance transaction, or investment strategy of your choice. The report must contain these two components:

1. Short description of the object
2. Discussion linking it to behavioral finance

In addition, you can try to connect your topic to comments in the media, or if you have access to a suitable person, you might conduct a quick interview [But don't take this to mean that you must interview someone, just try to utilize the resources you have].

You should begin by brainstorming about potential links between behavioral finance and different objects of analysis. While many topics often have many such links, it makes sense to focus later on. I.e., rather than covering many issues lightly, the best teams are able to provide strong coverage and convincing arguments for a single behavioral issue, while possibly briefly mentioning others. Even if you have more than one issue in mind, it makes sense to mostly focus on your strongest storyline.

Deliverables

- Preliminary plan (A1-plan): Introduce your topic of analysis. Max. 1 page. Use the Microsoft Word template from the class web site.
- Main report: Max. 4 pages. Use the Microsoft Word template from the class web site. Also include your four PowerPoint slides.
- Presentation: Prepare a presentation of your core message, for a target length of 7 minutes. Make three (3) PowerPoint slides for presentation material. Graphs and pictures supporting your arguments are very welcome, but please try to keep the file size below 500 Kb. That should still allow ample space for relevant pictures.

Arbitrageur's log, 10% credit available (A2)

The assignment

Come up with a trading idea, such as a convergence trade. It can be an application of any of the arbitrage strategies we cover in class, or something else geared toward producing positive abnormal returns (alpha). The intended investment horizon can extend beyond the due date of this assignment, and in that case you can think of your report as a 'quarterly report' of an ongoing venture.

Use any resources (E.g., Bloomberg terminal, Yahoo finance, or the newspapers) to get pricing data for your transaction. You do not have to check the prices daily, but follow closely enough, at least weekly.

Your report should cover the following issues:

1. Describe your trading idea, and what the motivation is. What do we know about this type of trade based on prior research? Try to find the most relevant and closest research if there is no research on the exact same trade.
2. Find out about execution: When doing this trade for real, what frictions would be relevant? Transaction costs, margin requirements, minimal amount of capital that must be employed, shortselling / borrowing securities, etc. For example, say your strategy involves shortselling bonds and someone in your group happens to know a bond trader - interview her! [But don't take this to mean that you must interview someone, just try to utilize the resources you have].
3. Note the significant news and developments in the market that affect your position. If you had this position for real, you would probably follow the news all the time. But we can relax a bit, and check it less frequently. However, getting a feel of what is really relevant is much harder if you try to do it all at once towards the end. This is because after the fact interpretations of news and market developments are different those from that are happening in real time. Therefore, it will be both easier, and make your analysis more relevant, if you try to follow the developments.
4. How did it perform?

Deliverables

- Main report: Max. 4 pages. Use the Microsoft Word template from the class web site.
- Presentation: Target length 7 minutes, 3 slides.

5. READINGS

Readings consist of

- Scientific articles (see Section 7 for a list, and the class schedule in section 6 for linking these articles to course topics). These are available through study.net and linked to Canvas.
- Occasionally media content that is freely available over the internet. These will be noted later in *Canvas*.
- The course is not following a textbook, but as a supplementary text I recommend:

Nofsinger, John R., Psychology of Investing, 4th ed. Prentice Hall/Pearson.

The text is accessible, and can be used for complementing the scientific research articles on the reading list. It is particularly useful as a quick reference to different decision-making biases that are relevant in finance applications. It may also prove useful when you are looking for a topic for the business application assignment (A1).

6. CLASS SCHEDULE

Full references to the readings are listed in section 7; The assignments in the 'Due' column are described in section 4.

	Date	Topic	Readings	Due
1	Wed 1/9	Course overview		
2	Mon 1/14	Review of standard finance, relation to behavioral finance	Thaler (1999)	
3	Wed 1/16	Review of standard finance, relation to behavioral finance		
	Mon 1/21	[MLK Jr. Day, no class]		
4	Wed 1/23	Anomalies	Lamont and Thaler (2003)	HW 1
5	Mon 1/28	Anomalies	Shiller (2003)	
6	Wed 1/30	Why does the EMH fail? [+ setting up A1 and A2]	Barber, Odean and Zhu (2009)	
7	Mon 2/4	Limited attention, storing and retrieving information, availability bias	Barber, Odean and Zheng (2005); Grinblatt and Keloharju (2001)	HW 2
8	Wed 2/6	Learning, overconfidence, attribution	Kaustia and Knüpfer (2008); Kaustia and Perttula (2012)	
9	Mon 2/11	Perceiving uncertainty and forecasting, representativeness -heuristic	Barberis, Shleifer and Vishny (1998)	A1-plan
10	Wed 2/13	Time preference, risk preference	Beshears, Choi, Laibson, and Madrian (2008)	
11	Mon 2/18	Risk preference, framing, mental accounting	Benartzi and Thaler (1995); Kaustia, Laukkanen, and Puttonen (2009)	C1
12	Wed 2/20	Anchoring, other biases	Kaustia, Alho, and Puttonen (2008)	
13	Mon 2/25	A1 Student presentations		A1
14	Wed 2/27	A1 Student presentations		C2
		[Spring break, no class]		
15	Mon 3/11	Individual investors' behavior	Kaustia and Torstila (2011); Kaustia and Knüpfer (2012)	
16	Wed 3/13	Individual investors' behavior	Kaustia (2010)	
17	Mon 3/18	Arbitrage trades	Shleifer and Vishny (1997)	C3
18	Wed 3/20	Arbitrage constraints	D'Avolio (2002)	
19	Mon 3/25	Arbitrage risk	Mitchell, Pulvino and Stafford (2002)	C4
20	Wed 3/27	Anomalies: Risk or mispricing?	Fama and French (1996)	
21	Mon 4/1	Anomalies: Risk or mispricing?	Lakonishok, Shleifer and Vishny (1994); Daniel and Titman (1997)	
22	Wed 4/3	Sentiment and asset pricing	Baker and Wurgler (2006)	
23	Mon 4/8	Corporate finance on biased markets	Baker and Wurgler (2000)	
24	Wed 4/10	Corporate finance on biased markets	Savor and Lu (2009)	C5
25	Mon 4/15	Corporate finance - biased managers	Malmendier and Tate (2008)	
26	Wed 4/17	A2 student presentations		A2
27	Mon 4/22	Final review		
	Tue 5/7	Final exam		

7. REFERENCES

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