Behavioral Finance

Syllabus

Term: Spring 2018

Prof. Nikolai Roussanov
Email: nroussan@wharton.upenn.edu
Office: 2326 SH-DH
Office hours: W 4-5:30 pm

Teaching Assistants:
Jianan Liu (jiananl@wharton.upenn.edu)
Simon Oh (simonsm.oh@gmail.com)
Alex Belyakov (alex.belyakov@yahoo.com)
Ewelina Zurowska (ewelina@wharton.upenn.edu)

Prerequisites: FNCE 100/611/612 and FNCE 101/613 required;
          FNCE 205/720 highly recommended.

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." However, recent theoretical and empirical research has shown this paradigm to be insufficient to describe various features of actual financial markets. In this course we will use insights from behavioral economics and psychology as well as other social sciences and more realistic economic settings to guide and develop alternative theories of financial market behavior, while relying on the analytical and quantitative methods common to finance. We will examine how the insights of behavioral finance complement the traditional paradigm and shed light on investors' trading patterns, the often anomalous behavior of asset prices, and various Wall Street institutions and practices impacting both firms and individual consumers.

Lectures
Section 239001 Tu/Thu 10:30 -11:50 JMHH G55
Section 239/739401 Tu/Thu 12:00 -1:20   JMHH G55
Section 739001 Tu/Thu 1:30 - 2:50   JMHH G55

Reading Materials
1. Textbook:
   Behavioral Finance: Insights into Irrational Minds and Markets, by James Montier (available in the bookstore).

2. Additional suggested readings (for those looking for more in-depth coverage of certain topics than provided in the main textbook, but also important sources of material for the term project).

Alternative textbooks that can be useful:

Behavioral Finance: Understanding the Social, Cognitive, and Economic Debates, by Burton and Shah
Beyond Greed and Fear: Understanding Behavioral Finance and the Psychology of Investing, by Shefrin

Big picture overviews by the leaders of the field, each with their own focus:

Adaptive Markets: Financial Evolution at the Speed of Thought by Andrew Lo
Animal Spirits by Akerlof and Shiller
Thinking, Fast and Slow by Daniel Kahneman.
Irrational exuberance by Robert Shiller

Engaging historical account of how some of these ideas came about, and their influence to date:
    The Undoing Project by Michael Lewis

Detailed coverage of market anomalies and/or trading strategies based on them:

Expected Returns: An Investor's Guide to Harvesting Market Rewards, by Antti Ilmanen
Quantitative Value: a Practitioner's Guide to Automating Intelligent Investing and Eliminating Behavioral Errors, by Wesley Gray

The Missing Risk Premium: Why Low Volatility Investing Works, by Erik Falkenstein

Narratives and specific episodes
  When Genius Failed by Roger Lowenstein. Account of LTCM failure.
  Big Bets Gone Bad by Phillipe Jorion. Description of Orange County fiasco.
  Capital Ideas by Peter Bernstein. Short history of academic finance (now dated).
  The Big Short: Inside the Doomsday Machine, by Michael Lewis. The subprime blowup.

Announcements, problem sets, solutions, and other material will be posted on the course **Canvas** website: https://canvas.upenn.edu/courses/1391891

Requirements

1. There are two exams given in class (see "Schedule" for the dates). Each exam is worth 25% of the final grade. They are discussed in more detail later in the syllabus.
2. A term project is worth 30% of the final grade. It will be due on the first day of the Final Exam period with group presentations during the last two weeks of class.
3. Problem sets and cases will be assigned on a regular basis. They are discussed in more detail later in the syllabus. In addition, I will assign supplementary readings occasionally, and will expect students to be prepared to discuss them in class. Together, problem sets and participation in the discussion of cases and other assigned reading together and Canvas surveys/quizzes will count for 20% of the final grade. In addition, a student whose final score is just below the margin between two letter grades may have their grade adjusted upward based on their work in problem sets and class participation.

Attendance and class participation

1. Because the textbook only provides cursory coverage of most topics (and none at all for others) it is not self-sufficient and is meant as a complement to, and not a substitute, for the lectures. Class attendance is therefore vital.
2. You must attend the lecture for the section for which you are registered.

3. Students are expected to have read all assigned materials as well as have completed the assigned Canvas surveys/quizzes in preparation for class.

4. Class participation is essential for the success of the course. Your questions not only help me better judge how the class is absorbing the material, they also help generate discussion. To this same end, I will also cold-call.

5. I may not be able to answer all questions to your satisfaction in class, especially if the answer involves material beyond that lecture's content. I am always happy to discuss such questions during my office hours.

6. To make it easier for me to get to know you, please sit in the same seat at each class session. Please bring a name tent to class (if you've forgotten it, please fold a piece of paper horizontally and write your first name in large block letters).

7. If you prefer to take notes and consult course materials during lecture using a laptop, tablet, iPad, etc., you are free to do so. However, it is important that you refrain from unrelated web-surfing during lecture as it is distracting to other students.

Help and Review Sessions

There will be regular help sessions throughout the semester. The date and time are yet to be confirmed.

Homework Assignments

Cases, readings, and problem sets will be assigned during the semester and all submissions are due before class begins, online or in hard copy (depending on assignment), unless specified otherwise. Late answers will not be accepted. I will assign Canvas surveys/quizzes based on the readings, to be completed individually. For all of the written assignments you may work with other students in the class. A team of people need only submit one copy of their solution for a particular problem set. Every member of the team will receive the same grade. Teams may be comprised of students from differing sections and differing programs (e.g., undergraduate and MBA). Team size is 4 students or less. Solutions to each problem set will be available after your answers have been turned in. Your graded answers will be returned to a file cabinet in the Finance Department in Steinberg-Dietrich Hall. The assignments will be graded by giving a "check-plus," "check," "check-minus," or "no credit." Cases will be discussed in class and your preparation is essential for these discussions. Although I won't be discussing most of the problem sets in class, the help and review sessions are structured to address your questions about the problem sets. The main purpose of the problem sets is to increase your understanding of the material and help you prepare for the exams.

Examinations

There will be two in-class examinations during the semester. The (tentative) dates are listed on the course schedule. They will be closed-book. For the first exam, you may bring an 8 ½ x 11 piece of paper of notes. You may write on both sides. For the second exam, you may bring two such pieces of paper. The second exam concentrates on material taught since the first exam, but material presented earlier may also appear on this exam.

You may bring a calculator to the exam, but not a computer (please do not plan on using your phone as a calculator).

Following university rules, exams may be postponed because of "illness, a death in the family, or some other unusual event." If such a circumstance arises, undergraduates must petition their dean's office for a makeup exam. MBA students must petition the MBA Program Office.

Term Project

The term project is meant as a venue for the students to apply the concepts and methods developed in class in a practical context of their interest. The goal of the project is to develop an implementable idea that has potential to generate value in that context. Specifically, student groups will take one of the following perspectives (of their own choosing): a portfolio management team looking for a new trading strategy; a consulting firm advising corporations on issues of financial management; an entrepreneurial start-up developing a retail financial product (further alternatives can be thought of – e.g., social entrepreneurship is a viable venue in some cases where profit opportunities are not available but correcting a bias would have great social value). Specific topic/idea choice must be approved by me in advance. In each case the main deliverable is in a form of a ``pitch'' to potential clients: institutional investors in the case of portfolio managers, corporate clients, or venture capitalists. This must contain the following elements:

1. Description of a behavioral anomaly to be exploited (or corrected)
   This must include specific behavioral biases and an explanation of how these biases lead to the observed behavior/anomaly, including why market forces alone may not act to eliminate them.
2. Description of the proposed strategy for taking advantage of this anomaly (e.g. in the case of asset mispricing) or for correcting the bias, either profitably or with benefit to society.
3. Evidence supporting the idea behind the strategy (why should it succeed?)
4. Description of risks and challenges (why might it fail?)

The pitch will be delivered both in the form of a group presentation in class and a formal write-up to be submitted by the due date.

Grades

Scores on term project and the two in-class exams will be standardized. Each student's final score is the weighted sum of these three standardized values, where the weights are 25% (exam 1), 25% (exam 2), and 30% (term project); in addition, homework assignments and class participation contribute 20%.

Tentative Outline of Topics

I. Non-behavioral finance: Introduction; Why we care: The roles of securities prices in the economy; Efficient markets hypothesis (EMH): Definitions; EMH in supply and demand framework; Theoretical arguments for flat aggregate demand curve; Equilibrium risk models; Pro-EMH evidence.

II. Some motivating evidence: Return predictability in the stock market and other asset markets; Data mining; Joint hypothesis problem.

III. Demand by average investors: Definition of average investor; Belief biases; Limited attention and categorization; Nontraditional preferences – prospect theory and loss aversion; Bubbles and systematic investor sentiment. Social interactions and positional concerns. The role of advisors, advertising.

IV: Demand by arbitrageurs: Definition of arbitrageur; Long-short trades; Risk vs. Horizon; Transaction costs and short-selling costs; Fundamental risk; Noise-trader risk; Professional arbitrage; Destabilizing informed trading (positive feedback, predation).

V. Supply by firms and managerial decisions: Supply of securities and firm investment characteristics (market timing, catering) by rational firms; Associated institutions; Relative horizons and incentives; Biased managers.

Important Dates:

Exam 1: February 27, in class

Exam 2: April 12, in class

Final project presentations (tentative): April 17, 19

Final project write-up due: May 1

Preliminary assignment due dates:

Problem Set 1: January 18
Problem Set 2: January 25
Case: GMO: January 30
Case: Numeric Investors: February 6
Case: Tremblant: February 13
Case: First National Bank: February 20

Case: Opportunity Partners: March 15
Case: Strategic Capital Management: March 22
Case: Biovail (Canvas Quiz only): March 22
Case: Nikkei 225: (Canvas Quiz only): March 27
Case: Martingale: March 29
Case: MCI/Qwest: April 5