Behavioral Finance & Experimental Finance
March 2009
*** PRELIMINARY ***

Prof: Ian D’Souza (idsouza@stern.nyu.edu)

Class times: 6 Classes, Tuesday Evening (March 31 – May 5, 2009)

Course website: Accessed via Blackboard system (http://sternclasses.nyu.edu/)

Final exam: TBD

Course description: Finance theory has long relied on a descriptively sparse model of behavior based on the premise that investors and managers are rational. Another critical assumption is that misjudgments by investors and managers are penalized swiftly in competitive markets. In recent years, both assumptions have been questioned as the standard model fails to account for various aspects of actual markets.

Behavioral finance, which allows that investors and managers are not always rational and may make systematic errors of judgment that affect market prices, has emerged as a credible alternative to the standard model. This course provides an exposition of the insights and implications of behavioral finance theory, showing how it can explain otherwise puzzling features of asset prices and corporate finance.

Notwithstanding the inroads of the new theory, the standard model retains strong support amongst many academics & practitioners who make criticisms of behavioral finance that deserve serious consideration. An important challenge that we will address in this course is identifying the respective domains of each perspective and whether there are tradable opportunities.

Class procedures: The course is taught through lectures, assignments, and discussions. Grading is as follows:

- 20% Class participation
- 30% Mini-assignments (3)
- 50% Final exam

For the mini-assignments and major assignment, teams of up to three (but no more) students may hand in a joint solution. These assignments are due at the beginning of each class – schedule to be provided.

All students are expected to follow the Stern Code of Conduct: (http://www.stern.nyu.edu/uc/codeofconduct)

A student’s responsibilities include, but are not limited to, the following: A duty to acknowledge the work and efforts of others when submitting work as one’s own. Ideas, data, direct quotations, paraphrasing, creative expression, or any other incorporation of the work of others must be clearly referenced. A duty to exercise the utmost integrity when preparing for and completing examinations, including an obligation to report any observed violations.
# Behavioral Finance

## Class schedule

<table>
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<tr>
<th>Class</th>
<th>Topic</th>
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<tbody>
<tr>
<td>Class 1</td>
<td><strong>I. Non-behavioral finance:</strong> 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 expected returns models; Key methodologies; Pro-EMH evidence</td>
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<tr>
<td>Class 2</td>
<td><strong>II. Some motivating evidence:</strong> Return predictability in the stock market; Data mining; Joint hypothesis problem; Prediction markets.</td>
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<td>Class 3**</td>
<td><strong>III. Demand by arbitrageurs:</strong> 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); Major Assignment: Arbitrage opportunity on ADRs of BHP Billiton</td>
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<tr>
<td>Class 4**</td>
<td><strong>IV: Demand by average investors:</strong> Definition of average investor; Belief biases; Limited attention and categorization; Nontraditional preferences – prospect theory and loss aversion; Bubbles and systematic investor sentiment</td>
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<tr>
<td>Class 5**</td>
<td><strong>V. Supply by firms and managerial decisions:</strong> Supply of securities and firm investment characteristics (market timing, catering) by rational firms; Associated institutions; Relative horizons and incentives; Biased managers</td>
</tr>
<tr>
<td>Class 6</td>
<td>Final Exam</td>
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* = Mini-Assignments due

## Reading List

Required readings are marked with a (*) below and will be made available via package also sold at the bookstore. When sitting down to read a paper on your own, try to take away the key intuition and results of the paper.

### I. Non-behavioral finance

*The standard model, based on rational expectations and competitive markets with negligible trading frictions.*


Early authors found strong empirical support for the efficient markets hypothesis (EMH).


Market efficiency could be “explained” by a highly abstracted model of behavior


### II. Some motivating evidence

*Since 1970, curious patterns in asset returns have been discovered. Such patterns include the market reaction to news and non-news.*


And patterns of return predictability in stocks.


Lo, Andrew, and A. Craig MacKinlay (1990), When are contrarian profits due to stock market overreaction?, Review of Financial Studies 3: 175-206.


There are also curious predictability patterns in bonds, options, forex, futures, real estate, and sports bets.


III. Demand by arbitrageurs

Market prices reflect supply and demand. Aggregate demand can be useful broken down into the demand of rational and/or highly sophisticated investors, which we’ll call arbitrageurs, and the demand of typical human investors.

(*) Shleifer, Andrei, Inefficient Markets (first chapter).


There are a range of costs and risks that deter would-be arbitrageurs.


Economics v83:667-689.

In certain circumstances, the smart-money trade may actually reduce market efficiency.


IV. Demand by average investors
Typical human investors hold divergent opinions about individual assets, but on any given day opinions tend to move in the same direction.

Barber, Brad, Terrance Odean, and Ning Zhu, 2005, Systematic noise, UC Davis working paper.

Systematic investor sentiment ultimately derives from common cognitive limitations and systematic biases in investors’ perceptions.

These individual-level biases are consolidated and amplified by social interaction.

V. Supply by firms and managerial decisions

Rational managers try to ‘time’ inefficient capital markets to reduce their overall cost of capital – they supply more of the currently overpriced securities, and buy back the underpriced ones.

Dong, Ming, David Hirshleifer, Scott Richardson, and Siew Hong Teoh, 2006, Does investor misvaluation drive the takeover market?, Journal of Finance v61(2):725-762

Rational firms also try to keep their stock prices high by “catering” to investors – i.e., adopting whatever characteristics investors currently
Managers, like average investors, are also subject to psychological biases.


Survey of behavioral corporate finance