Behavioral Finance

PGP–II Elective Course, January 2016

Credits:	0.75 (15 sessions)
Slot:	XI
Course facilitator:	Prof. Joshy Jacob

Course description

Behavioral finance is an evolving field within finance that attempts to understand the financial markets with models built on the assumption that at least some of the market participants depart from perfect rationality. It claims to offer more realistic models of financial decision making in certain market contexts with assumptions grounded in human psychology. Behavioral finance offers valuable insights into the investment behavior of individuals and market outcomes.

The course discusses the important models on investor and aggregate market behavior. The course endeavors to broaden the participants‘ understanding of financial markets.

The initial part of the course shares evidence from the financial markets, which contradict the notions of risk and return as the sole basis for pricing financial assets. This is followed by a discussion of the real-world limitations to achieve high levels of pricing efficiency in the financial markets. The course then discusses the popular models of behavioral decision making which are linked to the well-documented heuristics and biases. The concluding part of the course focuses on the relevance of the insights from the behavioral approach to the understanding of aggregate financial markets.

Pedagogy

Most of the sessions shall be taught through discussions, based on the assigned readings, supplemented by lectures. There is no dedicated textbook as topics discussed under behavioral finance vary considerably. A compendium of readings, including research papers and some select book chapters are provided as readings. Most of the papers discussed are in the context of stock markets. A few sessions shall also have discussions based on in-class experiments to illustrate decision making under uncertainty, particularly the role of heuristics and biases.

Readings

The textbook chapters given in the Session-wise outline are drawn from the following books.

1. Behavioural Finance: Insights into Irrational Minds and Markets by James Montier, Wiley Finance, 2009 [**JM**]

2. Behavioural Finance by William Forbes, John Wiley & Sons, 2009 [**FB**]

3. Choices, Values and Frames by Daniel Kahneman and Amos Tversky, Cambridge University Press, 2000 [**CVF**].

A number of research papers covering various topics form the major reading material for the course.

Course evaluation

Component	Weightage
Class participation	30%
End-term examination	50%
Project	20%

Session outline

Session	Topic, readings	
Introduction & foundations		
1	*Topic*	*Introduction to behavioral finance*
	Reading	What can behavioral finance teach us about finance
		Commonality in the Determinants of Expected Stock Returns
		The great divide over market efficiency
2	*Topic*	*Limits to arbitrage-free markets*
	Reading	Imperfect Markets and Limited Arbitrage, Chapter 2 [JM]
		Limited Arbitrage in Equity Markets
3	*Topic*	*Limits to arbitrage-free markets - Role of investor irrationality*
	Caselets	(a) The Mispriced ADRs of Allied Irish Banks
		(b) Great Northern Iron Ore Properties
Influence of heuristics & biases		
4	*Topic*	*Mental accounting & Narrow framing*
	Reading	Mental accounting matters, Richard H. Thaler
		Framing effects in stock market forecasts: The difference between asking for prices and asking for returns
5	*Topic*	*Overconfidence and optimism*
	Reading	Trading is hazardous to your wealth: The common stock investment performance of individual investors
		Boys will be boys: Gender, overconfidence, and common stock mistakes
6	*Topic*	*Anchoring and adjustment*
	Reading	The Role of Anchoring Bias in the Equity Market: Evidence from Analysts' Earnings Forecasts and Stock Returns

Session	Topic, readings	
7	*Topic*	*Hyperbolic discounting and myopia*
	Reading	The Hyperbolic Consumption Model
		The evolution of hyperbolic discounting - Implications for truly social valuation of the future
8 - 9	*Topic*	*Prospect theory and applications*
	Reading	Prospect Theory: An analysis of decision under risk, Ch. 2 [CVF]
		Asset pricing under Prospect Theory, Ch. 8 [WF]
10	*Topic*	*Disposition effect*
	Reading	Are Investors Reluctant to Realize Their Losses, Chapter 21 [CVF]
		Are Professional Traders Too Slow to Realize Their Losses?
		The Disposition to Sell Winners Too Early and Ride Losers Too Long: Theory and Evidence
Understanding financial markets through behavioral finance		
11	*Topic*	Market underreaction and overreaction
	Reading	Overreaction and/or Underreaction, Chapter 9, [WF]
		Speculative retail trading and asset prices
		Psychology and the Financial Crisis of 2007-2008
12	*Topic*	*Understanding and using market-wide sentiment*
	Reading	Investor Sentiment and the Cross-Section of Stock Returns
		Can Facebook Predict Stock Market Activity?
13	*Topic*	*Influence of nature, culture... on financial markets*
	Reading	Winter Blues: A SAD Stock Market Cycle
14	*Topic*	*Behavior of financial analysts*
	Reading	Overreaction and underreaction in analysts' forecasts
Behavioral financial product design		
15	*Topic*	*Behavioral finance insights and design of financial products*
	Reading	Investor psychology in capital markets: evidence & policy implications
		Save More Tomorrow: Using behavioral economics to increase employee saving

Group Projects

The group project shall attempt to generate a deeper understanding about a specific topic within behavioral finance. The project involves submission of a report. An indicative list of group projects is given below. However, you are free to choose topics other than those mentioned below.

1. **Behavioral investment approach:** Several investment approaches attempt to take advantage of the mis-valuation induced by the presence of noise-traders in the market. You may examine the effectiveness of any of these approaches using Indian stock market data. Such investment approaches could include:

(a) Contrarian investments - extreme value vs. extreme glamour (for instance, here, here)
(b) Investments based on accrual anomaly where market ignores cash flows and focuses on earnings (for instance, here, here)
(c) Based on sentiment measures: for instance the following are being used as quick measures of sentiment in the market either in isolation or as a combination:
   i. Market turnover
   ii. No. of IPOs (available on request from the instructor)
   iii. Put/Call ratios
   iv. Expected volatility proxied by VIX
   v. Optimism proxied by the ratio of analysts upgrades to downgrades

   (some examples are, option pricing, investor sentiment and asset valuation, analysts forecast errors, sentiment and response to news).

   The projects could examine the behavioral investment performance approaches using stock market data of about 2-3 years. The portfolios shall contain at least 30 stocks. The required stock market data is available in databases like Prowess, accessible in the library. The report of the findings should not exceed 2000 words.

2. **Analysis of financial products:** Financial products such as savings and insurance, especially retail products are often believed to be designed to take advantage of the use of heuristics and biases in decision making. Given this context, the participants would be expected to evaluate a set of retail products to examine how (i) the product features attempt to take advantage of the suspected biases and heuristics or (ii) how the products could be restructured to generate a more optimal decision.

   This project could also be a discussion of such influences documented in the public domain and produce a report of the important findings. The entire report should not exceed 4000 words.

3. **Examine asset price implications of behavioral biases or heuristics**: This would involve a detailed examination of the evidence emerging from the empirical and experimental research in a specific sub-topic within behavioral finance. An indicative list of areas would be arbitrage limits, framing, representativeness, anchoring, prospect theory, overconfidence, disposition effect and mental accounting. The report shall focus on the insights offered by the research, on financial market characteristics and investor behavior. The entire report should not exceed 4000 words.

   Some examples of projects done as part of earlier courses are below:

   (a) A Study of Prospect Theory and Its Implication for Asset Prices
   (b) Portfolio allocation and behavioral biases
   (c) Survey of biases and heuristics
   (d) Behavioral Bias: Impact of Disposition effect on Equity Markets
   (e) ULIP versus mutual funds
   (f) Generating Alpha from value based investing in Indian equities

The project submission dates shall be intimated later.

Contacts

Course Facilitator: Joshy Jacob, Extn.: 4878, joshyjacob@iimahd.ernet.in

Teaching Assistant: Hiteshi Ajmera , Extn.: 4422, hiteshia@iimahd.ernet.in