FINA542: Behavioral Finance - Spring 2007
Time: 9:00-12.20 Saturdays; Venue: Room 2502

Instructor:	Prof. K.C. John Wei
Office:	Room 2417
Phone:	2358-7676 (Office); 2358-1749 (Fax)
Email:	johnwei@ust.hk
Office hours:	by appointment
Course Website:	All relevant materials and announcements will be uploaded to LMES (http://lmes2.ust.hk)
Teaching Assistant:	Dr. Yun Li (email: will be available later)

Prerequisites
FINA521 and FINA522 or FINA527 and FINA528 ()

Required Textbooks:
1. Michael M. Pompian, 2006, *Behavioral Finance and Wealth Management: How to build optimal portfolios that accounts for investor biases*, John Wiley & Sons, Inc.: New Jersey
2. James Montier, 2006, *Behavioral Finance*: *Insights into Irrational Minds and Markets*, John Wiley & Sons, Ltd.: UK

Suggested Readings
Barberis, Nicholas, and Richard Thaler, 2003, "A survey of behavior finance," in Handbook of the Economics of Finance, G. Constantinides, M. Harris, and R. Stulz (ed.), North-Holland, Amsterdam.

Students are urged to read chapters and/or readings before each class. Further readings will be assigned from time to time.

Objectives:
Traditional finance seeks to understand financial markets assuming that investors are "rational." Rationality means that investors can access to and have the ability to process information correctly and that competition between investors ensures that securities are correctly priced to reflect all available information. That is, the market is efficient. However, recent studies suggest that markets are not efficient and that investors are not fully rational. For example, particular trading strategies based on past information such as past returns and accounting information are able to outperform the markets. In addition, studies find that investors are committed to certain heuristic-based biases and frame dependent such as overconfidence, optimism, self-attribution, illusion of control, loss aversion, representativeness heuristic, anchoring, availability, ambiguity aversion, hindsight, flaming, etc. Behavioral biases combined with limits to arbitrage may result in securities not to be correctly priced.

Behavioral finance examines how individuals' attitudes and behavior affect their financial decisions and financial markets. In particular, behavioral finance uses psychological evidence to model investor behavior in order to get a better understanding of the financial market. In this course, we will emphasize the role of *heuristic-driven biases* and *flame dependent* on the market inefficiency and how to train yourself to be more objective, patient, humble, and disciplined so that you can become a more successful investor. Topics include: review of psychological foundations, imperfect markets and limited arbitrage, market anomalies, and trading strategies.

Teaching Format
The course will be consisted mainly of my lectures and your class discussions.

Assignments
There are one team-based project and one individual-based final report. The final report will count for 55% and the team term project will count for 45%. The team-based project is required to be presented in the class. Each team will be consisted of 4 students or less. The grade for the team-based term project will be determined by your oral presentation and your written report.

Exams:
There is no exam in this course.

The assignments for the course are summarized as follows:

	Assignments	Weight
1.	Team-based project (written and oral presentation)	45%
2.	Individual-based project	55%
3.	Active class participation	Possible upgrade for marginal cases
	Total	100%

*****All assignments must be submitted in hard copies. No email attachments are accepted.**

Grades will be given based on the distribution suggested by University guidelines.

The due day for the *tentative* proposal of the term project: February 10, 2007.
The due day for the *refined or final* proposal of the term project: February 24, 2007.
The due day for the *written* term project and the presentation: March 24, 2007.
The due day for the *written* individual-based final report: March 31, 2007.

Team-based Term Project Assignment
Each team needs to analyze an interesting case related to behavioral finance, to investigate an investment trading strategy, or to analyze an industry. I encourage you to search for topics related to Hong Kong, Macau or China. The formal written report is limited to 15 pages *excluding* references, tables, figures, and appendixes. **The report must be typed. The format is very important and will be counted for 10% of the report.** The specification of the format is as follows: A4 paper, double space with one-inch margin on all sides, a font of 12 Times New Roman. The formal written report must be submitted in **hardcopy**. In addition, an MS power point presentation document must also be submitted on the electronic form. A short presentation (about 5-10 minutes) for each team is also required.

<u>Suggested topics for the team-based term project:</u>

1. ***Investigate the performance of trading strategies implemented on the Hong Kong markets:*** In this course, we will study a number of trading strategies. However, most of the evidence is from the U.S. market. It may be interesting to replicate those strategies to a subset of Hong Kong stocks (such as Hang Seng component stocks, H-shares, Red-chips). The strategies include (a) the 52-week high momentum investing, (b) the momentum strategy or contrarian strategy, (c) the value strategy, etc. Choose one of these strategies and investigate whether it works in Hong Kong.

2. ***Gamble on firms gambling in Macau***: In 2004, several Hong Kong-listed companies announced that they would get into Macau's gambling business. Hong Kong investors, in particular retail investors, appeared to be very excited about these "gambling" concept stocks. The announced firms' stock prices could go up substantially and sometimes up more than 100% on the announcement day, especially for small, money-losing stocks. Please collect relevant data (accounting data, announced deals, stock prices) on those announced firms and

analyze the value of the deals, the stock market reactions, the fundamentals of the firms, etc. Also analyze and discuss whether the market reactions are rational, what heuristic biases investors have been committed, what the lessons investors can learn from, etc.

3. ***Analyze red-chip stocks' price behavior before, during and after bubbles during Hong Kong's handover in 1997***: Before Honk Kong's handover to Mainland China in 1997, individual as well as institutional investors were very excited about the prospects of Hong Kong and China after the handover. Due to investors' upbeat sentiment, Hong Kong stock markets continued to reach historical highs, especially for those red-chip stocks. During that period, red-chip stocks that announced the asset injections from the parent companies to the Hong Kong-listed companies normally increased substantially on the announcement dates. Please collect the relevant data on those red-chip firms that announced asset injections and then analyze the investor sentiment and the stock price behavior before, during and after the bubble. Also analyze and discuss whether the market reactions were rational, what heuristic or cognitive biases investors have been committed, and what the lessons investors can learn from.

4. ***Analyze the Internet bubble around 2000***: Similar to item #2.

5. ***Analyze investors' enthusiasms and potential bubble for Hong Kong-listed China stocks in the financial industry (5 banks and 3 insurance companies) starting from 2005. Internet bubble around 2000***: Banks and insurance companied from China have been performed extremely well in the past one to two years due to investors' optimism about the growth potential in this industry. Some of the share prices have been gone up a couple of times. Please analyze the fundamentals of those major financial companies to see which companies have good value for potential investors. Also analyze and discuss whether the market participants are rational, what heuristic biases investors have been committed, and what the lessons investors can learn from.

6. ***Analyze Hong Kong-listed H-shares and red-chip companies in the petroleum-related industry:*** Since the end of SARS, the world oil prices have been hitting the historical high continuously before the middle of last year, due to the robust economic recovery around the world. The demand for the oil and oil-related products has been very strong, especially from China and India. As a result, those firms in the oil-related industry, in particular H-shares and red-chips, have seen their earnings and stock prices hitting the historical high in 2006. However, since the oil price hit the historical high of over US$78 per barrel in July 2006, it has continued to drop to slightly over US$50 per barrel recently. Please analyze the fundamentals of those major oil-related companies to see which companies have good value for potential investors. Also analyze and discuss whether the market participants are rational, what heuristic biases investors have been committed, and what the lessons investors can learn from.

7. ***Analyze Hong Kong-listed H-shares and red-chip companies in the electricity industry:*** Due to the booming economy in China, the demand for electricity has been exceeding the supply in recent years. Economic theory suggests that these electricity companies in China should do well. However, since the price of coal has also increased substantially and since due to regulations the electricity companies cannot raise the price adequately, the electricity companies (mainly H-shares) in recent years have mixed results. Firms that had locked in the coal price early have seen double digit increases in earnings, while firms that did not lock in the coal price early have seen decreases in earnings. Some of the H-share stocks have seen their stock prices dropped more than 40% since their hit the historical highs in early 2004. Please analyze the fundamentals of those major electricity H-share companies to see which companies have good value for potential investors. Also analyze and discuss whether the

market reactions were rational, what heuristic biases investors have been committed, and what the lessons investors can learn from.

8. ***Analyze Hong Kong-listed H-shares and red-chip companies in the coal industry:*** This may be opposite to the electricity industry

9. ***Analyze Hong Kong-listed H-shares and red-chip companies in the metal industry:*** The story is similar to the oil-related companies. Please analyze the fundamentals of those major metal-related companies (gold, steel, copper, cement, aluminum, etc.) to see which companies have good value for potential investors. Also analyze and discuss whether the market reactions were rational, what heuristic biases investors have been committed, what the lessons investors can learn from, etc.

10. ***Analyze Hong Kong-listed H-shares and red-chip companies in other interesting industries such as department stores, food, etc.***

11. ***Compare Hong Kong-listed H-shares with their China-listed A-shares counterparts:*** H-shares often also list their A-shares on the Shanghai Stock Exchange. But H-shares often have a substantial discount relative to their A-shares. Sometimes, the discount can be more than 70%. Please select companies in a particular industry that are listed in both the Hong Kong Stock Exchange and the Shanghai Stock Exchange to analyze the reasons why there are so much of differences in opinions between these two market participants. Also analyze and discuss whether the markets are rational, what heuristic biases investors have been committed, what the lessons investors can learn from, etc.

12. ***Herding behavior***: Stock recommendations from local newspapers often have significant impacts on stock prices, especially for small stocks. Please collect the data and analyze whether the effects are consistent and whether there is a reputation effect.

13. ***IPO crazy***: In the past year, almost all IPOs enjoyed substantial appreciations on the first trading day. Is the short-run performance a good indicator for long-run performance? Please collect the data and analyze the factors that affect the IPO short-run and long-run performance.

14. ***Others***: You can propose your own topic. Please discuss with me before you start your project.

Individual-based Term Project: Design an investment strategy that is the best fit to your personality in accumulating your wealth in the long run

I hope that you can apply the materials you learn from this course to identify and to understand your investment behavioral biases so that you can design an investment strategy that is the most suitable for you to build your wealth in the long run. To achieve this goal, I would like you to take the behavioral bias tests in the book and analyze your behavioral biases. In addition, if you have investment experience, I would like to discuss the behavioral biases you have committed in the past and to design strategies that remove or at least reduce those biases. In this project report, analyze your behavioral biases and design an investment strategy that is the best fit for your long-run accumulation of wealth so you can retire comfortably. You also need to discuss why your designed investment strategy fits your personality and what the possibility and the reasons your designed investment strategy may or may not work. The report is limited to 15 pages *excluding* references, tables, figures, and appendixes. The format is the same as the format for the team-based project.

Course Outline: (Note: ***The schedule is tentative and is subject to change. In addition, we may not be able to cover all the materials.***)

Week 1 (February 3, 2007)

Topic 1: Efficient Market Hypothesis, Behavioral Finance, and Limits to Arbitrage

1) Efficient Market Hypothesis versus Behavioral Finance
2) Limits to Arbitrage

Related articles:

- Fama, E. (1998), "Market efficiency, long-term returns and behavioral finance," *Journal of Financial Economics* 49:283−307.
- Shleifer, Andrei, and Robert Vishny, 1997, "The limits of arbitrage," *Journal of Finance* 52, 35-55.
- Froot, K., and E. Dabora, 1999, "How are stock prices affected by the location of trade?" *Journal of Financial Economics* 53, 189-216.
- Owen A. Lamont and Richard H. Thaler (2004), "Can the market add and subtract? Mispricing in tech stock carve-outs," *Journal of Political Economy* 111:227−268.

Week 2 (February 10, 2007)

Topic 1: Efficient Market Hypothesis, Behavioral Finance, and Limits to Arbitrage

Topic 2: Psychological foundations: Heuristic Biases, Frame Dependence, and Prospect Theory

1) Heuristic-based biases (Biases of judgment)
2) Frame dependence
3) Prospect theory (Errors of preference)
4) **Submit the *tentative* proposal for the term project: Including objective, motivation, sample firms, sample period, research methods, and expected results (1-2 pages)**

Related articles:

- Amos Tversky and Daniel Kahneman (1974), "Judgment under uncertainty: Heuristics and biases," *Science* 185, 1124-1131.
- Daniel Kahneman and Amos Tversky (1979), "Prospect theory: An analysis of decision under risk," *Econometrica* 47, 263-292.

Week 3 (February 24, 2007)

Topic 2: Psychological foundations: Heuristic Biases, Frame Dependence, and Prospect Theory

Topic 3: Style Investment

1) Psychological foundations
2) Value/Growth and Small/Big
3) **Submit your *refined or final* proposal for the term project: (2-4 pages)**

Related articles:

- Fama, Eugene F. and Kenneth R. French, 1992, "The cross-section of expected stock returns," *Journal of Finance* 47, 427-465.
- Piotroski, Joseph D., 2000, "Value investing: The use of historical financial statement information to separate winners from losers," *Journal of Accounting Research* 38, 1-41.
- Ali, Ashiq, Lee-Seok Hwang, and Mark A. Trombley, 2003, "Arbitrage risk and the book-to-market anomaly," *Journal of Financial Economics* 69, 355-373.
- Barberis, Nichole and Andrei Shleifer (2003), "Style investing," *Journal of Financial Economics* 68, 161−199.
- Teo, Melvyn and Sung-Jun Woo, 2004, "Style effects in the cross-section of stock returns," *Journal of Financial Economics* 74, 367-398.
- Wei, K.C. John and Jie Zhang, 2006, "The limits of arbitrage: Evidence from fundamental value-to-price trading strategies," HKUST working paper.

Week 4 (March 3, 2007)

Topic 3: Style Investment

Topic 4: Trading Strategies based on Overreaction and Underreaction: Momentum and contrarian

1) Value/Growth and Small/Big
2) Overreaction versus Underreaction
3) Representativeness versus Anchoring and Adjustment
4) Momentum versus Contrarian

Related articles:

- Jegadeesh, Narasimhan and Sheridan Titman, 2001, "Profitability of momentum strategies: An evaluation of alternative explanations," *Journal of Finance* .56, 699-720.
- Lee, Charles M.C. and Bhaskaran Swaminathan, 2000, "Price momentum and trading volume," *Journal of Finance* 55, 2017-2069.
- Thomas George and Chuan-Yang Hwang, 2004, "The 52-week high and momentum investing," *Journal of Finance* 59, 2145-2176.
- Moskowitz, T., and M. Grinblatt, 1999, "Do industries explain momentum?' *Journal of Finance* 54, 1249-1290.
- Andy C.W. Chui, Sheridan Titman, and K.C. John Wei, 2006, "Individualism and Momentum around the World," Working Paper, HKUST.
- Chan, Wesley S, Richard Frankel, S.P. Kothari, 2005, "Testing behavioral finance theories using trends and consistency in financial performance," *Journal of Accounting and Economic*s, forthcoming.

Week 5 (March 10, 2007)

Topic 4: Trading Strategies based on Overreaction and Underreaction: Momentum and contrarian

Topic 5: Investor behavior

1) Momentum versus Contrarian
2) Investor Sentiment

Related articles:

- Rashes, Michael S., 2001, "Massively confused investors making conspicuously ignorant choices (MCI–MCIC)," *Journal of Finance* 56, 1911-1927.
- Cooper, Michael J., Orlin Dimitrov, and P. Raghavendra Rau, 2001, "A rose.com by any other name," *Journal of Finance* 56, 2371-2388.
- Hirshleifer, David and Tyler Shumway, 2003, "Good day sunshine: stock returns and the weather," *Journal of Finance* 58, 1009-1032.
- Lee, C., A. Shleifer and R. Thaler (1991), "Investor sentiment and the closed-end fund puzzle," *Journal of Finance* 46:75-110.
- Barber, Brad M., and Terrance Odean, 2000, Trading is hazardous to your wealth: The common stock investment performance of individual investors," *Journal of Finance* 55, 773-806.
- Conrad, Jennifer, Bradford Cornell and Wayne R. Landsman, 2002, "When is bad news really bad news?" *Journal of Finance* 57, 2507-2532.
- Baker, Malcolm, and Jeffrey Wurgler, 2006, "Investor sentiment and the cross-section of stock returns," *Journal of Finance* 61, 1645-1680.

Week 6 (March 17, 2007)

Topic 5: Investor behavior

Topic 6: Other Cross-Sectional Anomalies

1) Accounting-based anomalies
2) Investment-based anomalies
3) Other cross-sectional anomalies
4) Aggregate Stock Market Predictability

Related articles:

- Sloan, Richard, 1996, "Do stock prices fully reflect information in accruals and cash flows about future earnings?" *Accounting Review* 71, 289-316.
- Titman, S., K.C.J. Wei, and F.X. Xie, 2004, "Capital investments and stock returns," *Journal of Financial and Quantitative Analysis* 39, 677-700.
- Bernard, V., and J. Thomas (1989), "Post-earnings announcement drift: delayed price response or risk premium?" *Journal of Accounting Research* (Supplement), 1-36.
- Diether, Karl, Christopher Malloy, and Anna Scherbina, 2002, "Differences of opinion and the cross section of stock returns," *Journal of Finance* 57, 2113-2141.
- Griffin, John and Michael Lemmon, 2002, "Book-to-market equity, distress risk, and stock returns, "*Journal of Finance* 57, 2317-2336.

Week 7 (March 24, 2007)
Topic 6: Other Cross-Sectional Anomalies

1) Accounting-based anomalies
2) Investment-based anomalies
3) Other cross-sectional anomalies
4) ***Today is the due day for the written term project and presentation.***

Week 8 (March 31, 2007)

1) ***Individual-based final report due***