



**Prof. Harrison Hong**  
email: [hhong@princeton.edu](mailto:hhong@princeton.edu)  
<http://www.stanford.edu/~hghong>  
Office: 210 Dial Lodge  
Office Hours: TBA

**Prof. Markus K. Brunnermeier**  
email: [markus@princeton.edu](mailto:markus@princeton.edu)  
<http://www.princeton.edu/~markus>  
Office: 205 Dial Lodge  
Office Hours: TBA

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## ECO575/FIN575: Topics in Financial Economics

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### Time and Location:

Part I: Sept. – Oct. 15: TTh 3:00 pm - 4:30 pm, Room 317, Bendheim Hall

Part II: Oct. 18 – Dec.: MW 4:30 pm - 6:00 pm, Room 317, Bendheim Hall

### Aim of the Course:

The course is designed as a topics course for second and third year PhD students, who want to specialize in Financial Economics. Thorough knowledge of game theory and general equilibrium theory as taught in the first year Microeconomics course is assumed. Master and undergraduate students can also attend in the course.

Aim of the course is to bring students to the research frontier and help them to conduct independent research in finance. This course is split in two parts. The first part will be taught by Prof Hong, the second part by Prof. Brunnermeier. We plan to make this course very interactive and incorporate student presentations. Additional course material will be made available on our websites.

### Structure of the Course:

#### **Part I: (Prof. Hong)**

##### **A) MARKET EFFICIENCY:**

1. Introduction to Market Efficiency
2. Arguments and Evidence

##### **B) LIMITS TO ARBITRAGE**

##### **C) OVER- AND UNDERREACTION**

1. Evidence
2. Theories and Further Evidence

##### **D) INVESTOR BEHAVIOR**

#### **Part II: (Prof. Brunnermeier)**

##### **A) ASSET PRICING UNDER ASYMMETRIC INFORMATION**

###### **1. Market Microstructure Models**

- Rational Expectations Equilibrium versus Bayesian Nash Equilibrium Concept
- Insider Trading Models and Sequential Trade Models
- Share Auctions

2. Allocative and Informational Efficiency
3. Higher Order Uncertainty, No-Trade Theorems

#### B) LIMITS TO ARBITRAGE AND BUBBLES

1. Noise trader risk (myopic versus long horizons)
2. Synchronization Risk

#### C) BELIEF BIASES

1. List of Psychological Biases
2. The Optimal Expectations Framework

#### D) LIQUIDITY ASSET PRICING – INSTITUTIONAL FINANCE

1. LTCM case and Predatory Trading
2. Funding Liquidity versus Market Liquidity
3. Consumer Liquidity demand - Bank runs
4. Credit Cycles
5. Liquidity Asset Pricing

#### E) INTRODUCTION TO INFORMATION THEORY

\* Given the time constraints, we cannot guarantee that all topics will be covered.

### **Detailed Reading List:**

#### **PART I:**

##### **A) MARKET EFFICIENCY**

###### **1. Introduction**

Summers, Lawrence H., 1985, On economics and finance, Journal of Finance 40, 633-635.

###### **2. Arguments and Evidence**

Froot, Kenneth and Emil Dabora, 1999, How are stock prices affected by the location of trade? Journal of Financial Economics 53, 189-216.

Jensen, Michael, 1978, Some anomalous evidence regarding market efficiency, Journal of Financial Economics 6, 95-101.

Klibanof, Peter, Owen Lamont and Thierry Wizman, 1998, Investor reaction to salient news in closed-end country funds, Journal of Finance 53, 673-699.

Lamont, Owen and Richard Thaler, 2003, Can the market add and subtract? Mispricing in tech stock carveouts, Journal of Political Economy, forthcoming.

Lee, C.M., A. Shleifer and R. Thaler, 1991, Investor sentiment and the closed-end fund puzzle, Journal of Finance 46, 75-110.

Mitchell, Mark, Todd Pulvino and Erik Stafford, 2002, Limited arbitrage in equity markets, *Journal of Finance* 57, 551-584.

Rosenthal, L. and C. Young, 1990, The seemingly anomalous price behavior of Royal Dutch Shell and Unilever nv/plc, *Journal of Financial Economics* 26, 123-141.

Shleifer, Andrei, 1986, Do demand curves for stocks slope down? *Journal of Finance* 41, 579-90.

Summers, Lawrence H., 1986, Does the stock market rationally reflect fundamental values? *Journal of Finance* 41, 591-601.

## **B) LIMITS TO ARBITRAGE - INTRODUCTION**

Chen, Joseph, Harrison Hong, Ming Huang and Jeffrey D. Kubik, 2003, Does fund size erode mutual fund performance? The role of liquidity and organization, Princeton University Working Paper.

Chevalier, Judy and Glenn Ellison, 1997, Risk taking by mutual funds as a response to incentives, *Journal of Political Economy* 105, 1167-1200.

Chevalier, Judy and Glenn Ellison, 1999, Career concerns of mutual fund managers, *Quarterly Journal of Economics* 114, 389-432.

Cohen, Randolph, Paul Gompers and Tuomo Vuolteenaho, 2003, Who underreacts to cash-flow news? Evidence from trading between individuals and institutions, *Journal of Financial Economics*, forthcoming.

Hong, Harrison, Jeffrey D. Kubik and Amit Solomon, 2000, Security analysts' career concerns and herding of earnings forecasts, *Rand Journal of Economics* 31, 121-144.

Lamont, Owen, 2002, Macroeconomic forecasts and microeconomic forecasters, *Journal of Economic Behavior and Organization*, forthcoming.

Scharfstein, David and Jeremy C. Stein, 1990, Herd behavior and investment, *American Economic Review* 80, 465-479.

Shleifer, Andrei and Robert W. Vishny, 1997, The limits of arbitrage, *Journal of Finance* 52, 35-55.

Stein, Jeremy, 2003, Why are most funds open-end? Competition and the limits of arbitrage, Harvard University Working Paper.

## **C) OVER- AND UNDERREACTION**

### **1. Evidence**

Bernard, Victor, 1992, Stock price reactions to earnings announcements, in Richard Thaler (ed.) *Advances in Behavioral Finance*. New York, Russell Sage Foundation.

Campbell, John, 1998, Asset prices, consumption and the business cycle, in Taylor and Woodford (eds.) *Handbook of Macroeconomics*, North-Holland.

Campbell, John and Robert Shiller, 1998, Valuation ratios and the long-run stock market outlook, *Journal of Portfolio Management*, Winter.

DeBondt, Werner F., and Richard Thaler, 1985, Does the stock market overreact? *Journal of Finance* 40, 793-805.

Fama, Eugene F., 1998, Market efficiency, long-term returns and behavioral finance, *Journal of Financial Economics* 49, 283-306.

Fama, Eugene and Ken French, 1998, Value versus growth: The international evidence, *Journal of Finance* 53, 1975-1999.

Fama, Eugene and Ken French, 1992, The cross-section of expected stock returns, *Journal of Finance* 47, 427-465.

Fama, Eugene and Ken French, 1988, Dividend yields and expected stock returns, *Journal of Financial Economics* 22, 3-25.

Jegadeesh, N. and Sheridan Titman, 1993, Returns to buying winners and selling losers: Implications for stock market efficiency, *Journal of Finance* 48, 65-91.

Lakonishok, Josef, Andrei Shleifer and Robert W. Vishny, 1994, Contrarian investment, extrapolation and risk, *Journal of Finance* 49, 1541-1578.

La Porta, R., 1996, Expectations and the cross-section of returns, *Journal of Finance* 51, 1715-1742.

LaPorta, R., J. Lakonishok, A. Shleifer, and R. Vishny, 1994, Good news for value stocks: further evidence on market efficiency, *Journal of Finance* 49, 1541-1578.

Loughran, Tim and Jay Ritter, 1995, The new issues puzzle, *Journal of Finance* 50, 23-50.

Michaely, Roni, Richard Thaler and Kent Womack, 1995, Price reactions to dividend initiations and omissions, *Journal of Finance* 50, 573-608.

Poterba, J. and L. Summers, 1988, Mean reversion in stock returns: Evidence and Implications, *Journal of Financial Economics* 22, 27-59.

Ritter, Jay, 1991, The long-run performance of initial public offerings, *Journal of Finance* 46, 3-27.

Shiller, Robert, 1981, Do stock prices move too much to be justified by subsequent changes in dividends? *American Economic Review* 71, 421-436.

## **2. Theories and Further Evidence**

Barberis, Nicholas, Ming Huang, and Tano Santos, 2001, Prospect theory and asset prices, *Quarterly Journal of Economics* 116, 1-53.

Barberis, Nicholas, Andrei Shleifer and Robert Vishny, 1998, A model of investor sentiment, *Journal of Financial Economics* 49, 307-343.

Benartzi, Shlomo and Richard Thaler, 1995, Myopic loss aversion and the equity premium puzzle, *Quarterly Journal of Economics* 110, 75-92.

CHAN, L. K. C., N. JEGADEESH, AND J. LAKONISHOK, 1996, MOMENTUM STRATEGIES, *JOURNAL OF FINANCE* 51, 1681-1713.

Conrad, J. and G. Kaul, 1998, An anatomy of trading strategies, *Review of Financial Studies* 11, 489-519.

Daniel, K. D., D. Hirshleifer, and A. Subrahmanyam, 1998, Investor psychology and security market under- and over-reactions, *Journal of Finance* 53, 1839-1886.

Fama, E. F. and K. R. French, 1996, Multifactor explanations of asset pricing anomalies, *Journal of Finance* 51, 55-84.

Grundy, B. F. and S. R. Martin, 2001, Understanding the nature of the risks and the source of the rewards to momentum investing, *Review of Financial Studies* 14, 29-79.

Haugen, R. A. and N. L. Baker, 1996, Commonality in the determinants of expected stock returns, *Journal of Financial Economics* 41, 401-439.

Hong, H., T. Lim, and J. C. Stein, 1998, Bad news travels slowly: Size, analyst coverage and the profitability of momentum strategies, *Journal of Finance* 55, 265-295.

Hong, H. and J. C. Stein, 1999, A unified theory of underreaction, momentum trading and overreaction in asset markets, *Journal of Finance* 54, 2143-2184.

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Moskowitz, T. J. and M. Grinblatt, 1999, Do industries explain momentum? *Journal of Finance* 54, 1249-1290.

Rouwenhorst, K. G., 1998, International momentum strategies, *Journal of Finance* 53, 267-284.

#### **D) INVESTOR BEHAVIOR**

Benartzi, Shlomo, 2001, Excessive extrapolation and the allocation of 401(k) accounts to company stock, *Journal of Finance* 56, 1747-1764.

Benartzi, S. and R. Thaler, 2001, Naïve diversification strategies in defined contribution savings plans, *American Economic Review* 91, 79-98.

Coval, Joshua and Tobias Moskowitz, 1999, “Home bias at home: Local equity preference in domestic portfolios,” *Journal of Finance* 54, 2045-2073.

Coval, Joshua D. and Tobias J. Moskowitz, 2001, The geography of investment: Informed trading and asset prices, *Journal of Political Economy* 109, 811-841.

French, Kenneth, and James Poterba, 1991, Investor diversification and international equity markets, *American Economic Review* 81, 222-226.

Genesove, David and Christopher Mayer, 2001, Loss aversion and seller behavior: Evidence from the housing market, *Quarterly Journal of Economics* 116, 1233-1260.

Grinblatt, Mark and Matti Keloharju, 2001, Distance, language and culture bias: The role of investor sophistication, *Journal of Finance* 56, 1053-1073.

Hong, Harrison, Jeffrey D. Kubik and Jeremy C. Stein, 2002, Social interaction and stock market participation, *Journal of Finance*, forthcoming.

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Glaeser, Edward L., and Jose Scheinkman, 2000, Non-market interactions, NBER Working Paper.

Huberman, Gur, 2001, Familiarity breeds investment, *Review of Financial Studies* 14, 659-680.

Odean, Terrance, 1998, Are investors reluctant to realize their losses? *Journal of Finance* 53, 1775-1798.

Odean, Terrance, 1998, Do investors trade too much? *American Economic Review* 89, 1279-1298.

Shiller, Robert J., and John Pound, 1989, Survey evidence on diffusion of interest and information among investors, *Journal of Economic Behavior and Organization* 12, 47-66.

## **PART II**

### **A) ASSET PRICING UNDER ASYMMETRIC INFORMATION**

Markus K. Brunnermeier, *Asset Pricing under Asymmetric Information - Bubbles, Technical Analysis, Herding and Crashes*, Oxford University Press, Jan. 2001  
CHAPTER 1-3. (see detailed references in this book)

## **B) LIMITS TO ARBITRAGE AND BUBBLES**

Andrei Shleifer, *Inefficient Markets – An Introduction to Behavioral Finance*, Oxford University Press, 2000

DeLong, J. Bradford, Andrei Shleifer, Lawrence H. Summers and Robert Waldmann, 1990a, Noise trader risk in financial markets, *Journal of Political Economy* 98, 703-738.

Abreu, Dilip and Markus Brunnermeier, 2003, Bubbles and crashes, *Econometrica* 71, 173-204.

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DeLong, J.B., A. Shleifer, L. Summers and R. Waldmann, 1990b, Positive feedback investment strategies and destabilizing rational speculation, *Journal of Finance* 45, 375-395.

Friedman, M., 1953, The case of flexible exchange rates, in *Essays in Positive Economics*, Chicago: University of Chicago Press.

Markus K. Brunnermeier, *Asset Pricing under Asymmetric Information - Bubbles, Technical Analysis, Herding and Crashes*, Oxford University Press, Jan. 2001 (CHAPTER 6)

Allen, F., Morris, S., Postlewaite, A., 1993. Finite bubbles with short sales constraints and asymmetric information. *Journal of Economic Theory* 61, 206-229.

Blanchard, Olivier J. and Watson, Mark W., 1982, Bubbles, rational expectations, and financial markets, in Paul Wachtel, ed., *Crises in Economic and Financial Structure*. Lexington MA: Lexington Books, 295-315.

Chen, Joseph, Harrison Hong and Jeremy C. Stein, 2002, Breadth of ownership and stock returns, *Journal of Financial Economics* 66, 171-205.

D'Avolio, G., 2002, The market for borrowing stock, *Journal of Financial Economics* 66, 271-300.

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Diether, K.B., C.J. Malloy and A. Scherbina, 2002, Differences of opinion and the cross-section of stock returns, *Journal of Finance* 57, 2113-2141.

Duffie, D., N. Garleanu and L. Pedersen, 2002, Securities lending, shorting and pricing, *Journal of Financial Economics* 66, 307-339.

Geczy, C.C., D.K. Musto, A.V. Reed, 2002, Stocks are special too: An analysis of the equity lending market, *Journal of Financial Economics* 66, 241-269.

Harris, M., Raviv, A., 1993, Differences of opinion make a horse race, *Review of Financial Studies* 6, 473-506.

Harrison, J.M., Kreps, D.M., 1978, Speculative investor behavior in a stock market with heterogeneous expectations, *Quarterly Journal of Economics* 93, 323-336.

Hong, Harrison, Jose Scheinkman, and Wei Xiong, 2003, Asset float and speculative bubbles, Princeton University Working Paper.

Kandel, E., Pearson, N.D., 1995, Differential interpretation of public signals and trade in speculative markets, *Journal of Political Economy* 103, 831-72.

Lamont, Owen and Charles Jones, 2002, Short-sales constraints and stock returns, *Journal of Financial Economics* 66, 207-239.

Miller, Edward, 1977, Risk, uncertainty and divergence of opinion, *Journal of Finance* 32, 1151-1168.

Morris, S., 1996, Speculative investor behavior and learning, *Quarterly Journal of Economics* 111, 1111-1133.

Ofek, Eli and Matthew Richardson, 2003, Dot-com mania: Market inefficiency in the internet sector, *Journal of Finance*, forthcoming.

Scheinkman, Jose and Wei Xiong, 2003, Overconfidence and speculative bubbles, *Journal of Political Economy*, forthcoming.

Campbell, John Y. and Hentschel, Ludger, 1992, No news is good news: An asymmetric model of changing volatility in stock returns, *Journal of Financial Economics* 31, 281-318.

Chen, Joseph, Harrison Hong and Jeremy C. Stein, 2001, Forecasting crashes: Trading volume, past returns and conditional skewness in stock prices, *Journal of Financial Economics* 61, 345-381.

Coval, Joshua D. and Hirshleifer, David, 2001, Sidelined investors, trading generated news and security returns, Ohio State Working Paper.

Cutler, David M., Poterba, James M. and Summers, Lawrence H., 1989, What moves stock prices? *Journal of Portfolio Management* 15, 4-12.

French, Kenneth R. and Roll, Richard, 1986, Stock return variances: The arrival of information and the reaction of traders, *Journal of Financial Economics* 17, 5-26.

French, Kenneth R., Schwert, G. William and Stambaugh, Robert F., 1987, Expected stock returns and volatility, *Journal of Financial Economics* 19, 3-29.

Genotte, Gerard and Leland, Hayne, 1990, Market liquidity, hedging and crashes, American Economic Review 80, 999-1021.

Hong, Harrison and Jeremy C. Stein, 2003, Differences of opinion, short-sales constraints and market crashes, Review of Financial Studies 16, 487-525.

Jacklin, Charles J., Kleidon, Allan W. and Pfleiderer, Paul, 1992, Underestimation of portfolio insurance and the crash of October 1987, Review of Financial Studies 5, 35-63.

Pindyck, Robert S., 1984, Risk, inflation, and the stock market, American Economic Review, 74, 334-351.

Roll, Richard, 1984, Orange juice and weather, American Economic Review 74, 861-880.

Roll, Richard, 1988,  $R^2$ , Journal of Finance 43, 541-66.

Romer, David, 1993, Rational asset-price movements without news, American Economic Review 83, 1112-30.

## **C) BELIEF BIASES**

### **1. List of Psychological Biases**

Barberis, Nicholas and Richard Thaler, 2002, A survey of behavioral finance, forthcoming George Constantinides, Milton Harris and Rene Stulz (eds.) Handbook of Economics and Finance, North Holland.

Rabin, Matthew, 1998, Economics and psychology, Journal of Economic Literature 36, 11-46.

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Gilovich, Tom, Dale Griffin and Daniel Kahneman (eds.), 2002, Heuristics and Biases: The Psychology of Intuitive Judgment, Cambridge University Press.

Fiske, Susan T. and Shelley E. Taylor, 1991, Social Cognition (2<sup>nd</sup> ed.), New York: McGraw Hill, Inc.

Nisbett, Richard and Lee Ross, 1980, Human Inference: Strategies and Shortcomings of Social Judgment, Englewood Cliffs, NJ: Prentice-Hall.

Hirshleifer, David, 2001, Investor psychology and asset pricing, *Journal of Finance* 56, 1533-1597.

Rubinstein, Mark, 2001, Rational markets: Yes or no? The affirmative case, *Financial Analysts Journal* (May-June), 15-29.

## **2. The Optimal Expectations Framework**

Brunnermeier, Markus K. and Jonathan Parker, "Optimal Expectations", working paper Princeton University

Gollier, Optimal Illusions and Decisions under Risk, Working paper, University of Toulouse...

## **D) LIQUIDITY ASSET PRICING – INSTITUTIONAL FINANCE**

### **1. LTCM and Predatory Trading**

Brunnermeier, Markus K. and Lasse Pedersen, Predatory Trading, *Journal of Finance* (forthcoming).

### **2. Funding Liquidity versus Market Liquidity**

Grossman, Sandy and Merton Miller, 1988, Liquidity and Market Structure, *Journal of Finance* 43, 617-633.

Brunnermeier, Markus K. and Lasse Pedersen, Funding Liquidity and Market Liquidity, mimeo.

### **3. Consumer Liquidity demand – Bank runs**

Diamond, Douglas and Phil Dybvig, Bank runs, deposit insurance, and liquidity, *Journal of Political Economy* 1993

Freixas and Rochet, *Microeconomics of Banking*, MIT Press, 1999

### **4. Credit Cycles – Balance Sheet Effects**

Kyotaki, Nobu and John Moore, 1997, Credit Cycles, *Journal of Political Economy* 105, 211-248.

Bernanke, Ben and Mark Gertler, 1989, Agency costs, net worth, and business fluctuations, 79, 14-31.

### **5. Liquidity Asset Pricing**

Holmström and Tirole, 1998, Private and public supply of liquidity, *Journal of Political Economy* 106, 1-40.

Holmström and Tirole, 2001, LAPM: A Liquidity-Based Asset Pricing Model, *Journal of Finance* 56, 1837-1867.

## **E) BRIEF INTRODUCTION TO INFORMATION THEORY**

Cover, Thomas M. and Joa A. Thomas, Information Theory, Wiley. 1991

Sims, Chris “Rational Inattention”, Working paper, Princeton University