Asset Pricing, Liquidity and Market Imperfections

Master in Economics — Paris Saclay University

Spring 2017

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Objective This course presents recent developments in research on financial market inefficiency. The literature rests on two major foundations which make up the two parts of this course. The first set of theories investigate why asset prices can deviate from fundamental values. These explanations include behavioral effects such as non-standard preferences or beliefs, agency frictions, and limited attention. The second leg of the theory explains why arbitrage and market forces do not necessarily eliminate inefficiencies, or can even amplify them. These theories emphasize agency frictions and institutional considerations. The course will cover both lines of research and will systematically combine presentation of theoretical models and empirical tests of the theory.

Organization The course is organized in 6 lectures of three hours on Monday morning at 9:00–12:00 (Jan. 30, Feb. 20, 27, Mar. 6, 13, 20). Presence is compulsory.

Evaluation Based on five assignments, to be prepared alone:

Theory problem 1 (10%): Distributed in class 1, to be submitted before class 2.

Theory problem 2 (10%): Distributed in class 3, to be submitted before class 4.

Empirical problem (20%): Distributed in class 2, to be submitted before class 5.

Referee report (30%): Distributed in class 5, to be submitted before April 16th, 24:00.

Model construction (30%): Distributed in class TBD, to be submitted before April 30th, 24:00.

Textbooks There is no single textbook for this course. For some lectures I provide one or two recommended readings (textbook chapters or surveys). Readings for each week are only recommended and not compulsory.

Course outline

Lecture 1: Market anomalies (Jan. 30)

> Refresher: consumption CAPM, CAPM
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> Time-series anomalies: excess volatility (Shiller, 1981), predictability and Campbell-Shiller (1988) decomposition, equity premium puzzle (Mehra and Prescott, 1985)
>
> Cross-sectional anomalies: flat security market line (Black, Jensen and Scholes, 1972), momentum (Jegadeesh and Titman, 1993), long-term reversal (DeBondt and Thaler, 1985), Fama-French (1993), violation law of one price (Fleckenstein, Longstaff and Lustig (2013)
>
> Demand effects: index effect (Shleifer, 1986), mutual fund flows (Coval and Stafford, 2007)

Recommended readings: Cochrane (2011), Shleifer (2000) chapter 1

Lecture 2: Risky arbitrage (Feb. 20) <u>Assignment 1 due</u>

> Idiosyncratic risk (Wurgler and Zhuravskaya, 2002)
>
> Noise trader risk (De Long, Shleifer, Summers and Waldmann, 1990, Foucault, Sraer and Thesmar, 2011)
>
> Crowded trades (Stein, 2009, Hanson and Sunderam, 2014)

Recommended readings: Gromb and Vayanos (2010) up to section 3.3

Lecture 3: Financially constrained arbitrageurs (Feb. 27)

> Leverage constraints (Gromb and Vayanos, 2002, Brunnermeier and Pedersen, 2009, Gârleanu and Pedersen, 2011, Adrian, Etula and Muir, 2014)
>
> Equity constraints: risk of withdrawal (Shleifer and Vishny, 1997, Stein, 2005, Lou, 2012, Hombert and Thesmar, 2014), slow moving capital (Mitchell, Pedersen and Pulvino, 2007)
>
> Firms as arbitrageurs (Baker and Wurgler, 2000, Khan, Kogan and Serafeim, 2012)

Recommended readings: Gromb and Vayanos (2010) starting on section 3.4, Baker and Wurgler (2013) section 2

Lecture 4: Incentives (Mar. 6) <u>Assignment 2 due</u>

> Risk shifting (Allen and Gorton, 1993, Allen and Gale, 2000, Chevalier and Ellison, 1997, Fahlenbrach and Stulz, 2011)
>
> Tail risk (Guerrieri and Kondor, 2013, Mitchell and Pulvino, 2001, Brunnermeier, Nagel and Pedersen, 2008)
>
> Herding (Scharfstein and Stein, 1990, Chevalier and Ellison, 1999, Dasgupta, Prat and Verardo, 2011)

Lecture 5: Beliefs & Limited attention (Mar. 13) Assignment 3 due

Heterogeneous beliefs (Miller, 1977, Harrison and Kreps, 1978, Barber and Odean, 2001, Chen, Hong and Stein, 2002, Diether, Malloy and Scherbina, 2002, Malmendier and Nagel, 2011)

Extrapolative expectations (Greenwood and Shleifer, 2014)

Limited attention (Cohen and Frazzini, 2008, Tetlock, 2011)

Recommended reading: Hong and Stein (2007); DellaVigna (2009) sections 3 and 4

Lecture 6: Nonstandard preferences (Mar. 20)

Loss aversion (Kahneman and Tversky, 1979, Odean, 1998, Barberis, Huang and Santos, 2001, Frazzini, 2006, Ben-David and Hirshleifer, 2012)

Ambiguity aversion (Dimmock, Kouwenberg, Mitchell and Peijnenburg, 2016)

Home bias (Coval and Moskowith, 2001)

Recommended reading: DellaVigna (2009) section 2, Barberis and Thaler (2003)

References for recommended readings

Baker and Wurgler 2013. Behavioral corporate finance: an updated survey. *Handbook of the Economics of Finance*

Barberis and Thaler 2003. A survey of behavioral finance. *Handbook of the Economics of Finance*

Cochrane 2011. Presidential address: discount rates. *Journal of Finance*

DellaVigna 2009. Psychology and economics: evidence from the field. *Journal of Economic Literature*

Gromb and Vayanos 2010. Limits of arbitrage: the state of the theory. *Annual Review of Financial Economics*

Hong and Stein 2007. Disagreement and the stock market. *Journal of Economic Perspectives*

Shleifer 2000. *Ine cient markets: an introduction to behavioral nance,* chapter 1. Oxford University Press