

## **15.474 Current Topics in Finance**

Spring 2020

The course covers a series of advanced topics in finance. The topics are selected at the discretion of the instructors, in line with their current research. For each topic, the course proposes a rapid overview of the literature, an in-depth presentation of selected contributions, and a list of potential research topics. Primarily for doctoral students in finance, economics, and accounting.

Please see the “Course Schedule” and “Readings” sections below for the precise topics to be covered in the course this year. The course is designed to jump-start Ph.D. dissertations; there is no final exam but a term paper and presentation requirement.

The Ph.D. students interested in finance are strongly encouraged to take this course multiple times since the research covered will change every year.

### **Class Schedule**

The class meets once per week, on Friday, 9:00 am – 12:00 pm, in E62-650. *Please note time change for April 17.*

### **Course Website**

The course website is on Canvas and all teaching materials will be posted on this site. Class announcements and lecture notes will be posted there.

### **Office Hours**

Please contact each professor by email to set up meetings.

### **Administrative Assistant**

Idalí Vega, E62-611C, (617) 715-4834, [ivega@mit.edu](mailto:ivega@mit.edu)  
Carlos Peña, E62-631, (617) 253-5858, [cpena@mit.edu](mailto:cpena@mit.edu)

### **Pre-requisites**

This course is intended for M.I.T. finance and economics Ph.D. students. The students who are taking this course should have already taken econometrics, microeconomics and introductory financial economics.

### **Course Requirements and Grading**

There is no final exam. The course grade is based on regular attendance and class participation

### **Course Materials**

Class notes and readings will be available on the course website. There is no required textbook for this course; most of the material taught is not yet in textbooks.

### **Sloan Values**

You are responsible for upholding Sloan’s code of conduct, which mandates zero tolerance for cheating and plagiarism. For more details on Sloan’s academic policies, please read the document “Classroom Values in Practice” which is available on the course website.

### Course Schedule

1 & 2	February 7	David Thesmar
3 & 4	February 14	Emil Verner
5 & 6	February 21	Debbie Lucas
7 & 8	February 28	Maryam Farboodi
9 & 10	March 6	Boris Vallée (HBS)
11 & 12	March 13	Daniel Greenwald
13 & 14	March 20	Boris Vallée (HBS)
15 & 16	April 3	Adrian Matray (Princeton)
17 & 18	April 10	Adrian Matray (Princeton)
19 & 20	April 17	Andrew Lo*
21 & 22	April 24	Debbie Lucas
23 & 24	May 1	Larry Schmidt
25 & 26	May 8	Larry Schmidt

\* Time change: class will meet from 1:00 pm – 4:00 pm, in E62-650

### Topics

#### Sessions 1&2, February 7: David Thesmar

Topics: Recent Evidence on Expectations Formation and Their Effect.

Suggested readings:

- Bouchaud, Jean-Philippe, Philipp Krueger, Augustin Landier, and David Thesmar, “Sticky Expectations and the Profitability Anomaly,” *Journal of Finance*, 2018.
- Bordalo, Pedro, Nicola Gennaioli, Rafael LaPorta, and Andrei Shleifer, “Diagnostic Expectations and Stock Returns,” *Journal of Finance* 2018.
- Bordalo, Pedro, Nicola Gennaioli, Yueran Ma, and Andrei Shleifer, “Overreaction in Macroeconomic Expectations,” *Technical Report* 2018.

- Coibion, Olivier and Yuriy Gorodnichenko, “Information Rigidity and the Expectations Formation Process: A Simple Framework and New Facts,” *American Economic Review*, 2015.
- Landier, Ma and Thesmar, 2019, “New Experimental Evidence on Expectations Formation”, WP
- Ma, Ropele, Sraer and Thesmar, 2019, “A Quantitative Analysis of Distortions in Managerial Forecasts”, WP

### **Sessions 3 and 4, February 14: Emil Verner**

Topics: Household Credit Markets, Business cycles, and Crisis.

Suggested readings:

- Background reading: Verner, “Private Debt Booms and the Real Economy: Do the Benefits Outweigh the Costs?” (2019)
- \* Mian, Sufi, and Verner, “Household Debt and Business Cycles Worldwide,” *The Quarterly Journal of Economics* (2017)
- \* Mian, Sufi, and Verner, “How Does Credit Supply Expansion Affect the Real Economy? The Productive Capacity and Household Demand Channels,” *Journal of Finance* (2020)
- Mian and Sufi, “What Explains the 2007–2009 Drop in Employment?” *Econometrica* (2014)
- Guerrieri and Lorenzoni, “Credit Crises, Precautionary Savings, and the Liquidity Trap,” *The Quarterly Journal of Economics* (2017)
- Korinek and Simsek, “Liquidity Trap and Excessive Leverage,” *American Economic Review* (2016)
- Farhi and Werning, “A Theory of Macroprudential Policies in the Presence of Nominal Rigidities,” *Econometrica* (2016)
- Auclert, Dobbie, and Goldsmith-Pinkham, “Macroeconomic Effects of Debt Relief: Consumer Bankruptcy Protections in the Great Recession” (2019)
- Di Maggio, Kermani, Keys, Piskorski, Ramcharan, Seru, and Yao, “Interest Rate Pass-Through: Mortgage Rates, Household Consumption, and Voluntary Deleveraging,” *American Economic Review* (2017)
- Piskorski and Seru “Debt Relief and Slow Recovery: A Decade after Lehman” (2019)
- \* Verner and Gyongyosi, “Household Debt Revaluation and the Real Economy: Evidence from a Foreign Currency Debt Crisis” (2019)
- de Ferra, Mitman, and Romei, “Household Heterogeneity and the Transmission of Foreign Shocks,” (2019)

- Schmitt-Grohé and Uribe, “Downward Nominal Wage Rigidity, Currency Pegs, and Involuntary Unemployment,” *Journal of Political Economy* (2016)

### **Sessions 5 and 6, February 21: Debbie Lucas**

Topics: Putting the Finance into Public Finance, Part 1

Suggested readings: TBD

### **Sessions 7 and 8, February 28: Maryam Farboodi**

Topics: Economics of Data in Financial and Real Market

Suggested readings:

- Long Run Growth of Financial Data Technology, with Laura Veldkamp, *American Economic Review*, 2019.
- Big Data in Finance and Growth of Large Firms (with J. Begenau and L. Veldkamp, *Journal of Monetary Economics*, 2018)
- Big Data and Firm Dynamics (with R. Mihet, T. Philippon, and L. Veldkamp, *AER P&P* 2019)
- Where Has All the Data Gone? (with A. Matray, L. Veldkamp, and V. Venkateswaran, 2019)
- A Growth Model of the Data Economy (with L. Veldkamp, 2019)

### **Session 9 & 10, March 6: Boris Vallée**

Topics: Security design

Suggested readings:

- Catering to Investors Through Security Design: Headline Rate and Complexity, by Claire Celerier and Boris Vallée, *Quarterly Journal of Economics* (2017) 132 (3): 1469–1508.
- Can Financial Innovation Solve Household Reluctance to Take Risk?, by Laurent Calvet, Claire Celerier, Paolo Sodini and Boris Vallée, Working Paper

### **Sessions 11 & 12, March 13: Daniel Greenwald**

Topics: TBD

Suggested readings: TBD

### **Sessions 13 & 14, March 20: Boris Vallée**

Topics: FinTech

Suggested readings:

- Vallée, Boris, and Yao Zeng. "Marketplace Lending: A New Banking Paradigm?" *Review of Financial Studies* 32, no. 5 (May 2019): 1939–1982. FinTech Special Edition
- Tobias Berg, Valentin Burg, Ana Gombović, Manju Puri, On the Rise of FinTechs: Credit Scoring Using Digital Footprints, *The Review of Financial Studies*

### **Sessions 15 & 16, April 3: Adrian Matray**

Topics: Trade and corporate finance

Suggested reading:

- Hombert, J., & Matray, A. (2018). Can Innovation Help U.S. Manufacturing Firms Escape Import Competition from China? *Journal of Finance*, 73(5), 2003–2039.

Additional readings

- Aghion, Philippe, Nick Bloom, Richard Blundell, Rachel Griffith, and Peter Howitt, 2005, Competition and innovation: An inverted-U relationship, *Quarterly Journal of Economics* 120, 701–728.
- Frésard, Laurent, 2010, Financial strength and product market behavior: The real effects of corporate cash holdings, *Journal of Finance* 65, 1097–1122.
- Aghion, P., Bergeaud, A., Lequien, M., & Melitz, M. J. (2017). The Impact of Exports on Innovation: Theory and Evidence. *NBER Working Paper*, 1–33.
- Beaumont, P., & Lenoir, C. (2018). Building a Customer Base under Liquidity Constraints. *Working Paper*, 1–54.
- Xu, C. (2018). Reshaping Global Trade: The Immediate and Long-Run Effects of Bank Failures. *Working Paper*.

### **Sessions 17 & 18, April 10: Adrian Matray**

Topics: Asset pricing and corporate finance

Suggested readings:

- Dessaint, O., Foucault, T., Frésard, L., & Matray, A. (2018). Noisy Stock Prices and Corporate Investment. *Review of Financial Studies*.

Additional readings:

- David, J. M., Hopenhayn, H. A., & Venkateswaran, V. (2016). Information, Misallocation and Aggregate Productivity. *Quarterly Journal of Economics*.
- van Binsbergen, J.H. and Opp, C.C. (2019), Real Anomalies. *The Journal of Finance*, 74: 1659-1706.
- Campello, M, and J.R Graham. 2013. Do Stock Prices Influence Corporate Decisions? Evidence from the Technology Bubble. *Journal of Financial Economics* 107:89-110.
- Hombert, J., & Matray, A. (2019). The Long-Term Consequences of the Tech Bubble on Skilled Workers' Earnings. *Working Paper*, 1–42.

### **Sessions 19 & 20, April 17: Andrew Lo**

Topics: Can Finance Cure Cancer, Reverse Climate Change, and Solve the Energy Crisis? New Financing Models for Addressing Society's Biggest Challenge

Suggested readings:

- Fagnan, D., Yang, N., McKew, J., Lo, A. Financing Translation: Analysis of the NCATS Rare-Diseases Portfolio. *Science Translational Medicine*. 2015; Vol. 7, Issue 276, pp. 276ps3
- Fernandez, J., Stein, R. & Lo, A. Commercializing biomedical research through securitization techniques. *Nat Biotechnol* 30, 964–975 (2012).
- Lo, A. W., Siah, K. W., & Wong, C. H. (2019). Machine Learning with Statistical Imputation for Predicting Drug Approvals. *Harvard Data Science Review*, 1(1).
- Montazerhodjat V, Chaudhuri SE, Sargent DJ, Lo AW. Use of Bayesian Decision Analysis to Minimize Harm in Patient-Centered Randomized Clinical Trials in Oncology. *JAMA Oncol*. 2017;3(9):e170123.
- Hull, J., Lo, A., Stein, R. Funding Long Shots. Working paper, 2019.
- Lo, A., Ho, C., Cummings, J., Kosik, K. Parallel Discovery of Alzheimer's Therapeutics. *Science Translational Medicine*. 2014; Vol. 6, Issue 241, pp. 241cm5.

### **Sessions 21 and 22, April 24: Debbie Lucas**

Topics: Putting the Finance into Public Finance, Part 2

Suggested readings: TBD

### **Sessions 23 & 24, May 1: Larry Schmidt**

Topics: Interactions between labor and financial markets

Suggested readings:

- Sebastian Di Tella, "Uncertainty Shocks and Balance Sheet Recessions," *Journal of Political Economy* 125, no. 6 (December 2017): 2038-2081.
- Schmidt, "Climbing and Falling Off the Ladder: Asset Pricing Implications of Labor Market Event Risk"

### **Sessions 25 & 26, May 8: Larry Schmidt**

Topics: Inequality and imperfect risk sharing

Suggested readings:

- Ai and Bhandari, "Asset Pricing with Endogenously Uninsurable Tail Risk"
- Kogan, Papanikolaou, Schmidt, and Song, "Technological Innovation and the Distribution of Labor Income Growth"