

FIRN Corporate Finance Ph.D. Course
The Economics of the Asset and Wealth Management Industries

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Course Outline

With the dramatic global growth of passive investing generally and exchange-traded funds specifically, the decline in traditional pensions and the rise of defined contribution retirement investing, and the disruptive innovation of FinTech, the asset and wealth management industries have undergone a dramatic transformation in the past two decades. Given the systemic importance of this industry to both firms and individuals alike, this transformation is of central importance to financial markets. However, for financial economists, the connection of these industries to key economic theories is even deeper. For example, Grossman and Stiglitz's (1980) seminal work on the informational efficiency of markets directly maps into the world of professional investors that is asset management. In this course, we will explore the asset and wealth management industries and both their systemic importance to financial markets and investors as well as their key connection to financial economics.

Course Schedule

The four class sessions will be held from 9 AM -12:30 PM on Monday, July 24th through Friday, July 28th. Consultation office hour sessions will be held in the afternoons on Monday, Tuesday, and Wednesday of that week.

Session	Topic
1: Mon, July 24th	<ul style="list-style-type: none">• Introduction to the Asset and Wealth Management Industries• Investment Flows
2: Tues, July 25th	<ul style="list-style-type: none">• Fund Manager Compensation and Incentives
3: Thurs, July 27th	<ul style="list-style-type: none">• Exchange-Traded Funds
4: Fri, July 28th	<ul style="list-style-type: none">• Mutual Funds as a Financial Economics Laboratory

Course Structure and Grading

The first three sessions of the course will begin with a case discussion. The case will introduce key institutional details and explore the economic forces at play in the industry. Students are required to read the case in advance and using the assigned discussion questions, prepare to participate in a case discussion led by the instructor.

Following the case, each session will cover several academic articles, and where possible, a review article which provides an overview of the relevant literature. Students should read these articles carefully as well and come prepared to class to discuss them.

The final session, Mutual Funds as a Financial Economics Laboratory, will explore research that has used the mutual fund setting to ask broader economic questions. This final session of the course will consist of three parts. First, the session will begin with the instructor presenting two examples of papers that have used the mutual fund setting to ask broader economic questions. Second, at the beginning of the week, students will be assigned one of the articles listed for the session. They will need to write up a two-page summary of the article discussing:

- How the article used the mutual fund laboratory to ask a broader economic question
- The major contribution and the methodology employed
- The potential limitations of the paper
- Possible extensions and unanswered questions

Each student should also come to the session prepared to give a short presentation (~20 minutes) on the paper addressing the same questions as above. Third, the session will finish with each student pitching a possible research idea in the asset and wealth management space. These ideas can come from any portion of the course or even outside of the topics covered in the course, but must be related broadly to asset and wealth management. The instructor and other students will give them feedback on their research ideas.

The course grade will be determined as follows:

- Participation in case and class discussions (60%)
- Research article write-up (20%)
- Research article presentation (20%)

Course Readings

Session 1A: Introduction to the Asset and Wealth Management Industries and Investment Flows

Case: **T. Rowe Price Group, Inc. (A)** (UVA-F-1992)

Case Preparation Questions:

1. How would you characterize the changes in the asset management industry? Given these sources of disruptive innovation, in what ways is T. Rowe Price well positioned? In what ways are they vulnerable?
2. Given the information in the case, what would your recommendation be regarding shares of TROW (T. Rowe Price's publicly traded stock): buy, sell or hold? Why?
3. Describe T. Rowe's November 19th announcement. What issues are they attempting to address through the change? What will determine whether they will be successful?
4. As an investor in TROW equity, how would you feel about the proposed change?
5. As an investor in a T. Rowe Price investment product, how would you feel about the proposed change?
6. As an employee at T. Rowe Price, how would you feel about the proposed change?

Articles:

- **The Economics of Mutual Funds**, 2011, David K. Musto, Annual Reviews of Financial Economics, vol. 3, pp. 159-172.

- **Mutual Funds in Equilibrium**, 2017, Jonathan B. Berk and Jules H. van Binsbergen, Annual Reviews of Financial Economics, vol. 9, pp. 147-167.
- **Investor Flows to Asset Managers: Causes and Consequences**, 2014, Susan E.K. Christoffersen, David K. Musto, and Russ Wermers, Annual Reviews of Financial Economics, vol. 6, pp. 289–310.
- **Mutual fund risk and market share-adjusted fund flows**, 2013, Matthew Spiegel and Hong Zhang, Journal of Financial Economics, vol. 108, pp. 506–528.

Session 2: Fund Manager Compensation and Incentives

Case: **Massachusetts Financial Services** (HBS #9-902-132)

Case Preparation Questions:

1. What is the organizational structure of MFS? Is this typical of investment management firms? What are the pros and cons of this structure?
2. Why do MFS managers characterize the labor market for portfolio managers as a “star” system? What are the characteristics of the MFS anti-star system?
3. Does the MFS system have weak or strong performance incentives? What type of behavior are they incentivizing?
4. Does MFS use benchmarks to assess the performance of fund managers? In 1999, who would have been paid more, value or growth managers? Do agree or disagree with their fund performance measurement methodology?
5. What are the potential problems created by the MFS performance evaluation system? Do you think the MFS will be successful in using their system for their hedge fund managers?
6. Are you more or less inclined to invest in MFS funds based on their compensation and incentive system? Would you be more or less inclined to work for MFS based on their compensation and incentive system?

Articles:

- **Moral hazard and observability**, 1979, Bengt Holmstrom, Bell Journal of Economics 10, pp. 74–91.
- **The Dynamics of Portfolio Management Contracts**, 1994, Robert Heinkel and Neal M. Stoughton, Review of Financial Studies, 7, pp. 351–387.
- **Are Mutual Fund Managers Paid for Investment Skill?**, 2018, Ibert, Markus, Ron Kaniel, Stijn van Nieuwerburgh and Roine Vestman, Review of Financial Studies, 31, pp. 715–772.
- **Portfolio Manager Compensation in the U.S. Mutual Fund Industry**, 2019, Linlin Ma, Yuehua Tang, and Juan-Pedro Gómez, Journal of Finance, 74(2), pp. 587-638.
- **Competition and Cooperation in Mutual Fund Families**, 2020, Melissa Prado, Rafael Zambrana-Galacho, Journal of Financial Economics, 136(1), 168-188.
- **Self-Declared Benchmarks and Fund Manager Intent: Cheating or Competing?**, 2023, Richard Evans, Huaizhi Chen, and Yang Sun, working paper.
- **Peer versus Pure Benchmarks in the Compensation of Mutual Fund Managers**, 2023, Richard Evans, Juan-Pedro Gómez, Linlin Ma, and Yuehua Tang, working paper.

Session 3: Exchange-Traded Funds

Case: Exchange-Traded Funds at Vanguard (A)&(B) (HBS #9-311-134)

Case Preparation Questions:

1. What are the differences between mutual funds and closed-end funds? Between these two types of funds and ETFs?
2. How does the market for ETFs compare to the market for mutual funds? Why are there such differences in the degree of market concentration?
3. What was the break-even size for the advisor-sponsor of a new ETF based on the S&P 500 stock index in 2001? Would this break-even size be lower if the advisor-sponsor launched a series of different ETFs?
4. In 2001, what were the major challenges for Vanguard in entering the ETF market? How could these challenges be overcome?
5. Should Vanguard launch actively managed ETFs? Passive ETFs?
6. Are ETFs a useful financial innovation? What are the pros and cons of ETFs to investors?

Articles:

- **Exchange-Traded Funds**, 2017, Itzhak Ben-David, Francesco Franzoni, and Rabih Moussawi, *Annual Reviews of Financial Economics*, vol. 9, pp. 169-189.
- **Exchange-Traded Funds 101 for Economists**, 2018, Martin Lettau and Ananth Madhavan, *JOURNAL OF ECONOMIC PERSPECTIVES*, vol. 32, pp. 135-54.
- **Intraday Arbitrage Between ETFs and their Underlying Portfolios**, 2021, Travis Box, Ryan Davis, Richard Evans, and Andrew Lynch, *Journal of Financial Economics*, 2021, 141(3), 1078-1095.
- **Operational Shorting and ETF Liquidity Provision**, 2023, Richard Evans, Rabih Moussawi, Michael Pagano, and John Sedunov, working paper.
- **Phantom of the Opera: ETF Shorting and Shareholder Voting**, 2023, Richard Evans, Oğuzhan Karakaş, Rabih Moussawi, and Michael Young, working paper.

Session 4: Mutual Funds as a Corporate Laboratory

Articles to be assigned to students:

- **Does fund size erode mutual fund performance? The role of liquidity and organization**, 2004, Chen, Joseph, Harrison Hong, Ming Huang, and Jeffrey D. Kubik, *American Economic Review*, 94, pp. 1276–1302.
- **Outsourcing mutual fund management: Firm boundaries, incentives, and performance**, 2013, Chen, Joseph, Harrison Hong, Wenxi Jiang, and Jeffrey D. Kubik, *Journal of Finance*, 68, pp. 523–558.
- **When should firms share credit with employees? Evidence from anonymously managed mutual funds**, 2010, Massimo Massa, Jonathan Reuter, Eric Zitzewitz, *Journal of Financial Economics*, 95(3), pp. 400-424.
- **Management sub-advising in the mutual fund industry**, 2018, David Moreno, Rosa Rodríguez, Rafael Zambrana, *Journal of Financial Economics*, 127(3), pp. 567-587.
- **Assessing asset pricing models using revealed preference**, 2016, Jonathan B. Berk, Jules H. van Binsbergen, *Journal of Financial Economics*, 119(1), pp. 1-23.
- **Quality and Product Differentiation: Theory and Evidence from the Mutual Fund Industry**, 2022, Maxime Bonelli, Anastasia Buyalskaya and Tianhao Yao, working paper.

Other articles covered in the session:

- **Identity, Diversity, and Team Performance: Evidence from U.S. Mutual Funds**, 2023, Richard Evans, Melissa Prado, Emanuele Rizzo, and Rafael Zambrana-Galacho, working paper.
- **Diseconomies of Scale, Information Processing and Hierarchy Costs: Evidence from Asset Management**, 2022, Richard Evans, Martin Rohleder, Hendrik Tentesch, Marco Wilkens, Journal of Financial and Quantitative Analysis, forthcoming.