

AcF856: Advanced Asset Pricing II – Topics in Hedge Funds

Course outline 2025-2026

The course is an advanced module in empirical asset pricing, focusing on hedge funds, their returns, risks, and impact on financial markets. The course is structured around discussions of relevant academic papers. While lecture slides provide essential background information on methodologies and key results, students are required to read suggested academic papers and be prepared to discuss them in detail.

The assessment is 100% coursework-based, with students required to replicate results from a paper discussed in class that is most closely related to their own research topic.

Lecture 1: HF databases and data biases

1.1 Hedge funds (HFs): general introduction

1.2 HF databases

(a). Information coverage – Example of a database

(b). Data biases and misreporting:

i. Self-reporting

ii. Back filling

Reading:

- Philippe Jorion and Christopher Schwarz (2019), The Fix Is In: Properly Backing out Backfill Bias, *The Review of Financial Studies*.

Lecture 2: Do HFs manipulate reported returns?

2.1 Return smoothing

2.2 December return spikes

2.3 Discontinuity at zero

2.4 Stock price manipulation around reporting dates

Reading:

- Mila Getmansky, Andrew W. Lo, and Igor Makarov (2004), An econometric model of serial correlation and illiquidity in hedge fund returns, *Journal of Financial Economics* 74, 529–609.
- Agarwal, V., N. D. Daniel and N. Y. Naik (2011). "Do Hedge Funds Manage Their Reported Returns?" *Review of Financial Studies* **24**(10): 3281-3320.
- Bollen, N. P. B. and V. K. Pool (2009). "Do Hedge Fund Managers Misreport Returns? Evidence from the Pooled Distribution." *The Journal of Finance* **64**(5): 2257-2288.
- Bollen, N. P. B. and V. K. Pool (2012). "Suspicious Patterns in Hedge Fund Returns and the Risk of Fraud." *Review of Financial Studies*, **25**(5): 2673-2702
- Ben-David, I., F. Franzoni, A. Landier and R. Moussawi (2013). "Do Hedge Funds Manipulate Stock Prices?" *The Journal of Finance* **68**(6): 2383-2434.
- Kolokolova, O. and Cui, Xinyu (2025). "Do Hedge funds Still Manipulate Stock Prices?", *Journal of Corporate Finance*, **92**.
- Cici, Kempf, and Puetz (2016), "The valuation of hedge funds' equity positions", *The Journal of Financial and Quantitative Analysis*, **51**(3): 1013-1037.

Lecture 3: HF Alpha – Does it exist and where does it come from?

- 3.1 Regression analysis of hedge fund returns
 - (a) Linear vs nonlinear models
 - (b) Factor choice
- 3.2 HF alpha persistence
 - (a) AR models
 - (b) Transition probabilities
 - (c) Portfolio sorts
- 3.3 Other methods of measuring managerial skill
 - (a) Fund launching time
 - (b) Performance of HF holdings

Reading:

- William Fung and David A. Hsieh (2004), Hedge Fund Benchmarks: A Risk-Based Approach, *Financial Analysts Journal*, 60 (5), 65-80
- Vikas Agarwal and Narayan Y. Naik (2000), Multi-Period Performance Persistence Analysis of Hedge Funds, *Journal of Financial and Quantitative Analysis*, 35(3), 327-342
- *Additional reading:* Robert Kosowski, Narayan Y. Naik, Melvyn Teo (2007), Do hedge funds deliver alpha? A Bayesian and bootstrap analysis, *Journal of Financial Economics* 84, 229–264.
- Cao, Farnsworth, Zhang (2021) The Economics of Hedge Fund Startups: Theory and Empirical Evidence, *Journal of Finance*, 76(3), 1427-1469.
- Xinyu Cui, Olga Kolokolova, and Jiaguo (George) Wang (2024), On the Other Side of Hedge Fund Equity Trades, *Management Science*, 70(6), 3684-3710

Data libraries:

http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/data_library.html

<http://faculty.fuqua.duke.edu/~dah7/HFData.htm>

Lecture 4: Managerial incentives and risk taking

- 4.1 Theoretical predictions of risk taking implied by the non-linear compensation structure
 - (a) Discrete time finite horizon model
 - (b) Continuous time infinite horizon model
- 4.2 Empirical investigation of hedge fund risk taking
 - (a) Using monthly HF data
 - (b) using daily HF data

Reading:

- James E. Hodder and Jens Carsten Jackwerth (2007), Incentive Contracts and Hedge Fund Management, *Journal of Financial and Quantitative Analysis*, 42 (4), 811–826.
- Lan, Y., N. Wang, and J. Yang (2013). The economics of hedge funds. *Journal of Financial Economics* 110 (2), 300 - 323.
- George O. Aragon and Vikram Nanda (2012), Tournament Behavior in Hedge Funds: High-water Marks, Fund Liquidation, and Managerial Stake, *Review of Financial Studies*, 25 (3), 937-974.
- Olga Kolokolova and Achim Mattes (2018), A Time to Scatter Stones, and a Time to Gather Them: The Annual Cycle in Hedge Fund Risk Taking. *The Financial Review*, 53 (4), 669-704.

Lecture 5: Hedge fund Flow

- 5.1 Do investors chase performance? Impact of past HF performance on fund flow.
- 5.2 Is money smart? Impact of flow on future fund performance.

Reading:

- Bill Ding, Mila Getmansky, Bing Liang, and Russ Wermers, 2019, Share Restrictions and Investor Flows in the Hedge Fund Industry. Working paper.

Lecture 6: Hedge fund liquidation

- 6.1 Modelling hedge fund default probability
 - (a) Logit/probit model
 - (b) Proportional hazard rate model
- 6.2 Strategic behaviour within hedge fund investment companies
 - (a) Impact of fund company-membership on the probability of its liquidation
 - (b) Fund performance prior to the liquidation
- 6.3 Estimation of exit returns of HFs

Reading:

- Bing Liang and Hyuna Park, 2010, Predicting Hedge Fund Failure: A Comparison of Risk Measures, *Journal of Financial and Quantitative Analysis*, 45(1), 199–222.
- Olga Kolokolova, 2011, Strategic behavior within families of hedge funds, *Journal of Banking & Finance* 35, 1645–1662.
- Hodder, James E., Jens C. Jackwerth, and Olga Kolokolova, 2014, Recovering Delisting Returns of Hedge Funds, *Journal of Financial and Quantitative Analysis*, 49 (3) 779-815.

Lecture 7: Hedge Funds and Liquidity Risk

- 7.1 Measuring Market Liquidity Risk
- 7.2 Liquidity Risk Exposure of HF Portfolios
- 7.3 Funding Liquidity of HFs
- 7.3 Liquidity Provision of Hedge Funds to the Market

Reading:

- Sadka, 2010, Liquidity Risk and Cross-section of Hedge Fund returns, *Journal of Financial Economics*, 98, 54-71.
- Teo, 2011, The liquidity risk of liquid hedge funds, *Journal of Financial Economics*, 100, 24-44.
- Aragon, Strahan, 2012, Hedge funds as liquidity providers: Evidence from the Lehman bankruptcy, *Journal of Financial Economics*, 103, 570-587
- Jylha, Rinne, Suominen, 2014, Do hedge funds supply or demand liquidity? *Review of Finance*, 18 (4): 1259-1298.

Lecture 8: Hedge fund performance and systemic risk

8.1 Impact of global market systemic risk on HF's performance

8.2 Impact of HF's on the systemic risk of global markets

Reading:

- Nicholas Chan, Mila Getmansky, Shane M. Haas, and Andrew W. Lo, 2005, Systemic Risk and Hedge Funds, published in *The Risks of Financial Institutions* by National Bureau of Economic Research.
- Charles Cao, Bing Liang, Andrew W. Lo, Lubomir Petrasko, 2018, Hedge Fund Holdings and Stock Market Efficiency, *The Review of Asset Pricing Studies*, 8 (1), 77-116.
- Olga Kolokolova, Ming-Tsung Lin, and Ser-Huang Poon, 2020, Too Big to Ignore? Hedge Fund Flow and Bond Yields, *Journal of Banking and Finance*, 112.
- Mathias S. Krutli, Andrew J. Patton, Tarun Ramadorai, The Impact of Hedge Funds on Asset Markets, *The Review of Asset Pricing Studies*, Volume 5, Issue 2, December 2015, 185-226.
- Joni Kokkonen and Matti Suominen, 2015, Hedge Funds and Stock Market Efficiency, *Management Science*, 61(12), 2890-2904.