

DRE 4021 Advances in Asset Pricing Theory

@ Centre for Advanced Study (CAS) at The Norwegian Academy of Science and Letters

May 19 – 23, 2025

Syllabus

Monday & Tuesday --- Paul Ehling --- in person at CAS

1. Portfolio Choice

- a. Dynamic Consumption and Portfolio Choices: Cake Eating Problem in Discrete Time and in Continuous Time. The Solution(s) with Static and Time-Varying Opportunity Set.
- b. The Equivalent Static Portfolio Problem
- c. **Literature:** Cox, J. C. and C. Huang, 1989, Optimal Consumption and Portfolio Policies when Asset Prices Follow a Diffusion Process, *Journal of Econometric Theory* 49, 33-83. Cox, J. C. and C. Huang, 1991, A Variational Problem Arising in Financial Economics, *Journal of Mathematical Economics* 20, 465-487. Detemple, J. B., R. Garcia, and M. Rindisbacher, 2003, A Monte Carlo Method for Optimal Portfolios, *Journal of Finance* 58, 401-446. Dybvig, P. H. and Chi-fu Huang, 1988. Nonnegative Wealth, Absence of Arbitrage, and Feasible Consumption Plans, *Review of Financial Studies* 4, 377-401. Merton, R. C., 1969, Lifetime Portfolio Selection under Uncertainty: The Continuous Time Case, *Review of Economics and Statistics* 51, 247-257. Merton, R. C., 1971, Optimal Consumption and Portfolio Rules in a Continuous Time Model, *Journal of Econometric Theory* 3, 373-413.

2. Asset Pricing with a Lucas tree & two trees

- a. **Literature:** Lucas, R. E. Jr., 1978, Asset Prices in an Exchange Economy, *Econometrica* 46, 1429-1445. Cochrane, J. H., F. A. Longstaff, and P. Santa-Clara, 2008, Two Trees, *Review of Financial Studies* 21, 347-385. Mehra R. and Prescott, E.C., 1985, The equity premium: A puzzle, *Journal of Monetary Economics* 15, 145-161. Weil, Philippe, 1989, The equity premium puzzle and the risk-free rate puzzle, *Journal of Monetary Economics* 24, 401-421.

3. Asset Pricing with Heterogeneous Risk Aversion

- a. **Literature:** Dumas, B., 1989, Two-Person Dynamic Equilibrium in the Capital Market, *Review of Financial Studies* 2, 157-188. Wang, J., 1996, The Term Structure of Interest Rates In A Pure Exchange Economy With Heterogeneous Investors, *Journal of Financial Economics* 41, 75-110.

Tuesday --- Christian Heyerdahl-Larsen --- in person at CAS

4. Beliefs Basics

- a. **Literature:** Barberis, N., R. Greenwood, L. Jin, and A. Shleifer (2015), Basak, S. (2000), Basak, S. (2005), Berrada, T. (2006), Buraschi, A., and A. Jiltsov. (2006) Collin-Dufresne, P., M. Johannes, and L. A. Lochstoer, (2016), Cujean, J., and M. Hasler. (2017), David, A. (2008), Detemple, J. B., and S. Murthy. (1994), Dumas, B., A. Kurshev, and R. Uppal. (2009), Ehling, P., M. Gallmeyer, C. Heyerdahl-Larsen, and P. Illeditsch. (2018), Ehling, P., A. Graniero, and C. Heyerdahl-Larsen. (2018), Greenwood, R., and A. Shleifer, (2014), Heyerdahl-Larsen and Illeditsch (2021), Heyerdahl-Larsen and Illeditsch (2025), Heyerdahl-Larsen and Walden (2022), Heyerdahl-Larsen and Walden (2023),

Malmendier, U and Nagel S, (2011), Malmendier, U and Nagel S, (2016), Scheinkman, J., and W. Xiong. (2003), Xiong, W., and H. Yan. (2010), Zapatero, F. (1998)

Tuesday --- Petra Sinagl --- online

5. Habits Basics

- a. **Literature:** Abel, A., 1990, Asset Prices under Habit Formation and Catching up with the Joneses, *American Economic Review* 80, 38-42. Campbell, J., Cochrane, J. [1999] "By Force of Habit: A Consumption-Based Explanation of Aggregate Stock Market Behavior," *Journal of Political Economy* 107, 205-251. *Asset Pricing and Portfolio Choice Theory*, Kerry E. Back, 2nd Edition, Chapter 11.1.

Wednesday --- Paul Ehling --- in person at CAS

6. Asset Pricing with Overlapping Generations

- a. **Literature:** Blanchard, O., 1985, Debt, Deficits, and Finite Horizons, *Journal of Political Economy*, 93, 223-247. Yaari, M. E., 1965, Uncertain Lifetime, Life Insurance, and the Theory of the Consumer, *Review of Economic Studies*, 32, 137-150.

Wednesday --- Petra Sinagl --- online

7. Asset pricing with Habits

- a. **Literature:** Chan, Y. L., and L. Kogan, 2002, Catching Up with the Joneses: Heterogeneous Preferences and the Dynamics of Asset Prices, *Journal of Political Economy* 110, 1255-1285. Menzly, L., Santos, T. and P. Veronesi, 2004, Understanding Predictability, *Journal of Political Economy*, 112. Buraschi, Andrea, and Alexei Jiltsov. "Habit formation and macroeconomic models of the term structure of interest rates." *The Journal of Finance* 62.6 (2007): 3009-3063.

Thursday --- Zeshu Xu --- in person at CAS

8. Experience effects

- a. **Literature:** Ehling, P., A. Graniero, and C. Heyerdahl-Larsen, 2018, Asset Prices and Portfolio Choice with Learning from Experience, *Review of Economic Studies*, 85, 1752-1780.

9. Constraints

- a. **Literature:** Basak, S., and D. Cuoco, 1998, An Equilibrium Model with Restricted Stock Market Participation, *Review of Financial Studies*, 11, 309-341. Gallmeyer, M., and S. Hollifield, 2008, An Examination of Heterogeneous Beliefs with a Short-Sale Constraint in a Dynamic Economy, *Review of Finance*, 12, 323-364.

10. Coding asset pricing models in Python

- a. <https://github.com/GoPenguinGo/AssetPricingWithLearningFromExperience>

Friday --- Christian Heyerdahl-Larsen --- in person at CAS

11. Beliefs, demand disagreement, welfare

- a. **Literature:** Brunnermeier, Simsek, and Xiong (2014), Heyerdahl-Larsen and Illieditsch (2025), Heyerdahl-Larsen and Walden (2022), Heyerdahl-Larsen and Walden (2023)

12. Multiple goods and international finance

- a. **Literature:** Colacito and Croce (2010, 2013), Ehling and Heyerdahl-larsen (2015), Heyerdahl-Larsen (2014), Stathopoulos (2017), Verdelhan (2008), Dahlquist, Heyerdahl-Larsen, Pavlova and Penasse (2025)
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Tuesday, May 27 --- Stavros Panageas --- online

13. The Implications of Heterogeneity and Inequality for Asset Pricing

- a. **Literature:** Panageas, Stavros (2020). "The Implications of Heterogeneity and Inequality for Asset Pricing". In: Foundations and Trends in Finance

Take-home exam: 30.05.25 0900 --- 06.06.25 1200 (Digital Home Exam (PDF))

Written exam: 13.06.25 0900 --- 13.06.25 1200 (Pen & Paper)