

Course Title

Course title – Intitulé du cours	Behavioral Finance
Level / Semester – Niveau /semestre	MRes – 2 nd semester
School – Composante	Ecole d'Economie de Toulouse
Teacher – Enseignant responsable	Milo Bianchi
Lecture Hours – Volume Horaire CM	15h
Course Language – Langue du cours	English
TA and/or TP Language – Langue des TD et/ou TP	English

Teaching staff contacts:

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Course Objectives:

Standard finance theory finds a hard time in explaining several phenomena associated to the behaviors of individual investors and of financial markets. In the past 30 years, several so-called puzzles have been systematically documented. In response to these puzzles, behavioral finance has emerged to develop alternative approaches relaxing standard assumptions about investors' preferences, beliefs, and rationality. The aim is to make more realistic assumptions on how investors process information, how they form beliefs, how they perceive risk and, as a result, try to make more accurate predictions. A novel and particularly interesting angle to address these issues come from the rise of fintech services, which may have the potential of helping investors be less exposed to behavioral biases and possibly improve the efficiency of financial markets.

This course is intended to present and propose a discussion of the most recent developments in behavioral finance, with applications to household finance and financial markets. In each lecture, we will present some important departure from the standard framework, in terms of preferences, beliefs, or cognitive resources. We will see how those departures can be incorporated into models of decision making and of market interactions. We will discuss how those richer models can be used to analyze financial choices and asset markets in the field. We will consider issues related to portfolio choices including the disposition effect, portfolio inertia, under participation and under diversification, under saving, short-termism. We will see how those choices lead to financial market phenomena such as excessive trading volume, mispricing, excessive volatility, market inefficiency.

Content

Part 1: Non-standard preferences and beliefs

(Prospect Theory, Ambiguity aversion, Overconfidence, Social Preferences)

Part 2: Limited cognitive resources

(Limited attention, Limited strategic thinking)

Part 3: Portfolio choices and asset prices in the fintech era

(Behavioral biases in online platforms, Robo-advisors, AI in Finance)

By the end of this course, students should be able to:

- Evaluate portfolio choices and asset prices in light of recent insights in behavioral finance
- Assess the impact of fintech on individual investors and financial markets
- Discuss critically papers at the research frontier
- Elaborate novel research ideas

Prerequisites :

Basic micro and econometrics.

Practical information about the sessions:

5 lectures, 3 hours each

Grading system :

Evaluation will be based on a report in which a topic presented in class is critically evaluated and a possible research idea is developed. Details will be announced in the first lecture of the course.

Bibliography/references:

Surveys:

Barber, B. M. and Odean, T. (2013), "The behavior of individual investors", in *Handbook of the Economics of Finance*, Elsevier, pp. 1533-1570

Beshears, J. and Choi, J.J. and Laibson, D. and Madrian, B.C. (2018), Behavioral Household Finance. NBER Working Paper No. w24854

Barberis, Nicholas (2018). "Psychology-based models of asset prices and trading volume." *Handbook of Behavioral Economics: Applications and Foundations 1*. Vol. 1. North-Holland. 79-175.

Campbell, J. Y. (2006), "Household Finance", *Journal of Finance*, 61(4): 1553-1604.

Papers (PRELIMINARY):

Part 1

Barberis, N. C., Jin, L. J., & Wang, B. (2021). "Prospect theory and stock market anomalies" *Journal of Finance*, 76(5): 2639-2687.

Bianchi, M. and Tallon, J.-M. (2019), "Ambiguity Preferences and Portfolio Choices: Evidence from the Field", *Management Science*, 65(4): 1486-1501.

Bianchi, Milo and Wang, Gang and Liu, Zhengkai, (2022) Are We Becoming Greener? Life-time Experiences and Responsible Investment. Available at SSRN: <https://ssrn.com/abstract=4003445>

Epstein, Larry G., and Martin Schneider (2010) "Ambiguity and asset markets." *Annual Review of Financial Economics*: 315-346.

Kahneman D and Tversky A. (1979) "Prospect theory: an analysis of decision under risk" *Econometrica* 47: 263-291.

Köszegi, Botond 2006. "Ego Utility, Overconfidence, and Task Choice," *Journal of the European Economic Association*, vol. 4(4), pages 673-707.

Malmendier, Ulrike. (2021) "Experience effects in finance: Foundations, applications, and future directions." *Review of Finance* 25.5 1339-1363.

Odean T. "Are investors reluctant to realize their losses?" (1998) *Journal of Finance*, 53: 1775-1798.

Odean, T. 1999. "Do investors trade too much?" *American Economic Review*, 89: 1279—1298.

Scheinkman, Jose A., and Wei Xiong. "Overconfidence and speculative bubbles." *Journal of political Economy* 111.6 (2003): 1183-1220.

Part 2

Aragones, Enriqueta & Itzhak Gilboa & Andrew Postlewaite & David Schmeidler, 2005. "Fact-Free Learning," *American Economic Review*, vol. 95(5), pages 1355-1368.

Barber, B. M. and Odean, T. (2008) "All That Glitters: The Effect of Attention and News on the Buying Behavior of Individual and Institutional Investors," *Review of Financial Studies*, 21(2), 785-818.

Bianchi, M. (2018), "Financial Literacy and Portfolio Dynamics", *Journal of Finance*, 73(2): 831-859.

Bianchi, M., and P. Jehiel. (2020) "Bundlers' dilemmas in financial markets with sampling investors." *Theoretical Economics* 15.2: 545-582.

Dellavigna, S. & Pollet, J. M. (2009) "Investor Inattention and Friday Earnings Announcements," *Journal of Finance*, 64(2), 709-749.

Hirshleifer, D. and Teoh, S.H. (2003) "Limited attention, information disclosure, and financial reporting," *Journal of Accounting and Economics*, 36(1-3), 337-386.

Nagel, R "Unraveling in Guessing Games: An Experimental Study", *American Economic Review*, 1995, vol. 85(5), pages 1313-26

Simon, Herbert - A Behavioral Model of Rational Choice - *Quarterly Journal of Economics*, Vol. 69, No. 1. (Feb., 1955), pp. 99-118.

Teoh, S.H., Welch, I. and Wong, T.J. (1998) "Earnings Management and the Long-Run Market Performance of Initial Public Offerings," *Journal of Finance*, 53(6): 1935-1974.

Part 3

Bianchi, M. and Brière, M. (2021), "Augmenting Investment Decisions with Robo-Advice", Available at SSRN: <https://ssrn.com/abstract=3751620>

Bianchi, M. and Brière, M. (2022), "Robo-Advising: Less AI and More XAI?" in *Machine Learning and Data Science in Financial Markets*, Cambridge University Press.

Buchanan, B. (2019), 'Artificial intelligence in finance', Available at <http://doi.org/10.5281/zenodo.2612537>.

D'Acunto, F. Prabhala, N. and Rossi, A. (2019), "The Promises and Pitfalls of Robo-advising" - *Review of Financial Studies*, 32(5), 1983-2020.

Berg, T., Burg, V., Gombović, A., & Puri, M. (2020) "On the rise of FinTechs—Credit scoring using digital footprints" *Review of Financial Studies*, 33(7), 2845-2897.

Gargano, A. and Rossi A.G. (2018). "Does it Pay to Pay Attention?" *Review of Financial Studies* 31.12: 4595-4649.

Inderst, Roman, and Marco Ottaviani. "Financial advice." *Journal of Economic Literature* 50, no. 2 (2012): 494-512.

Jordan, M. I. (2019), 'Dr. AI or: How I learned to stop worrying and love economics', *Harvard Data Science Review* 1(1).

Miller, T. (2019), 'Explanation in artificial intelligence: Insights from the social sciences', *Artificial Intelligence* 267, 1-38.

Philippon, T. (2019), 'On fintech and financial inclusion', *NBER Working Paper No. 26330*

Session planning :

Sessions 1-3 will be devoted to non-standard preferences and beliefs. Session 4 will be devoted to limited cognitive resources. Session 5 will be devoted to portfolio choices and asset prices in the fintech era. This plan may be adapted based on time constraints or students' interest.