

## FINANCIAL ECONOMICS OF CLIMATE AND SUSTAINABILITY

### GLOBAL DOCTORAL READING GROUP 2026

16 December 2025

Note: Required readings are either labelled or identified by an asterisk. They are available through linked URLs. Books on this reading list are optional and must be accessed locally. In some instances, we may provide multiple links, as students may have differential access to various sites. This syllabus is subject to change. Please check the “FECS announcements” channel on Slack for changes and see the course Dropbox for any readings that are not shareable by URL links.

**Core Classes–Dates and Times:** All core classes are 11:00-13:00 US East Coast time. Note that because of differing national practices of adoption of daylight savings times (e.g., US-Mar 8; UK/Euro-Mar 29), the time for the sessions with asterisks below may vary from the norm at your location. Zoom links, slides, and other materials available on Dropbox to registered participants.

Class 1: Feb 3 – Introduction to Climate Science and Nature

Class 2: Feb 10 – Climate, Sustainability, Economic and Finance Theory 1

Class 3: Feb 17 – Climate, Sustainability, Economic and Finance Theory 2

Class 4: Feb 24 – Climate, Corporate Carbon Accounting and Disclosures

Class 5: March 3 – Climate and Asset Pricing (Theory)

Class 6: March 10\* – Climate and Asset Pricing (Empirics) (Note: Class at 11:00 EDT; for other participants check local time).

March 17– OFF, no class

Class 7: March 24\* – Sustainable Finance 1: Investing in Equity (Note: Class at 11:00 EDT; for other participants check local time).

Class 8: March 31 – Sustainable Finance 2: Investing in Debt

Class 9: April 7 – Climate, Banking, and Insurance (NEW)

Class 10: April 14 – Climate and Corporate Finance

Class 11: April 21– Nature and Biodiversity (NEW)

Class 12: April 28 – Climate and Household Finance; Wrap up

**Elective Sessions–Dates and Times:** Elective sessions will be held at the dates/times below. Check the course Dropbox and Slack for more information. Note that Electives may use a different Zoom from the Core Classes, so check Dropbox.

Thurs, March 5: 11:00-12:00 EST. The Economics of the Energy Transition: Geoff Heal (Columbia)

Thurs, April 2: 11:00-12:30 EST. Impact Investing in Private Markets: Deeksha Gupta (Johns Hopkins), Jan Starmans (Stockholm School of Economics)

Monday, April 13: 9:00-10:00 EST. Transition Finance and Transition Planning: Ben Caldecott (Oxford)

**Dates TBD:** Community presentations from FECS participants and organizations: Peter Tufano (Harvard) and others

## CLASS 1: Introduction to Climate Science and Nature

*Professor Peter Tufano, Harvard University*

This session seeks to level-set the class with respect to elements of climate and nature science that would be useful to financial economics researchers. For some of you, this material may be a high-level review of work that you have already studied extensively, but for others, it may be your first exposure. In either case, the faculty will expect that you will have familiarity with basic terms and concepts as we proceed with the remainder of the class.

### Required readings and assignment (5)

1. <https://climateprimer.mit.edu/> \* This is a comprehensive but accessible introduction to climate science. You can either go through the interactive version or download the pdf version (<https://climateprimer.mit.edu/climate-science-risk-solutions-0324.pdf>). If you have an opportunity, please drill down a little deeper on climate models (<https://climateprimer.mit.edu/climate-change#predicting-climate>).
2. After you've gone through the Climate Primer, please read two Reports on the current state of the climate.
  - a. Please read this March 2023 IPCC Report\* summary for policymakers [https://www.ipcc.ch/report/ar6/syr/downloads/report/IPCC\\_AR6\\_SYR\\_SPM.pdf](https://www.ipcc.ch/report/ar6/syr/downloads/report/IPCC_AR6_SYR_SPM.pdf)
  - b. Please read this UNEP Emissions Gap Report\* from October 2025 <https://www.unep.org/resources/emissions-gap-report-2025>
3. To get a sense of the challenges of getting to a 1.5° scenario, please create your own pathway using the MIT-developed simulator, En-Roads, which is available at <https://www.climateinteractive.org/en-roads/> (click on "Explore the En-Roads Simulation"). This is a simplified version of a systems model. To understand how to use it, either watch the video linked below (or read the instructions on the website) and then put together your model using the control panel. ([Watch the En-ROADs Introductory Walkthrough](#))
4. In this year, we will be adding more nature and biodiversity material to FECS. Alongside the IPCC, a companion group—the Intergovernmental Panel on Biodiversity and Ecological Services (IPBES) collects evidence from a wide range of scientists to summarize the research on the state of nature. Their first report was published in 2019. \*Please read the "Key Messages" section (pages 9-20) from the Policy Makers summary. <https://zenodo.org/records/3553579> (click the "download" button under "files.")

## CLASSES 2 & 3: The Economics and Finance of Climate Change

Professors Geoffrey Heal, Columbia University, and Patrick Bolton, Imperial College London

### Class 2: Required Readings (6)

Millner, Antony, and Geoffrey Heal. "Choosing the Future: Markets, Ethics and Rapprochement in Social Discounting." *Journal of Economic Literature* 61, no. 3 (2023): 1037-1087.

<https://doi.org/10.1257/jel.20211675> ([https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3824529](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3824529))

Heal, Geoffrey, Noah Kaufman, and Antony Millner. "Discounting the Distant Future: A Critique of the EPA's Analysis of the Social Cost of Carbon". New York: Center on Global Energy Policy at Columbia University, June 6, 2023.

[https://www.energypolicy.columbia.edu/wp-content/uploads/2023/06/EPA\\_Social\\_Discount\\_Rate\\_Commentary\\_CGEP\\_060523-1.pdf](https://www.energypolicy.columbia.edu/wp-content/uploads/2023/06/EPA_Social_Discount_Rate_Commentary_CGEP_060523-1.pdf)

Heal, Geoffrey, and Antony Millner. "Uncertainty and Decision-Making in Climate Change Economics." *Review of Environmental Economics and Policy* 1, no. 8 (2014): 120-137.

<https://doi.org/10.1093/reep/ret023> ([https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2241397](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2241397))

Millner, Antony, Simon Dietz, and Geoffrey Heal. "Scientific Ambiguity and Climate Policy." *Environmental and Resource Economics* 55 (2013): 21-46. <https://doi.org/10.1007/s10640-012-9612-0>

([https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2191966](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2191966))

Heal, Geoffrey. "The Economics of the Climate." *Journal of Economic Literature* 55, no. 3 (2017): 1046-1063. <https://doi.org/10.1257/jel.20151335>

Gilboa, Itzhak, Andrew W. Postlewaite, and David Schmeidler. "Probability and Uncertainty in Economic Modeling." *Journal of Economic Perspectives* 22, no. 3 (2008): 173-188.

<https://pubs.aeaweb.org/doi/pdfplus/10.1257/jep.22.3.173>.

### Class 3: Required readings (6)

Coase, Ronald H. "The Problem of Social Cost." *The Journal of Law and Economics* 56, no. 4 (1960): 837-877. <https://www.jstor.org/stable/724810>

(<https://www.law.uchicago.edu/sites/default/files/file/coase-problem.pdf>)

Gollier, Christian. *Pricing the Planet's Future: The Economics of Discounting in an Uncertain World*. Princeton University Press (2012) – Note: this is a book and you will have to get access to it locally if possible.

Daniel, Kent, Robert Litterman, and Gernot Wagner. "Declining CO2 Paths." *Proceedings of the National Academy of Sciences* 116 no. 42 (2019). <https://doi.org/10.1073/pnas.1817444116>

Pindyck, Robert S. "The Social Cost of Carbon Revisited." *Journal of Environmental Economics and Management* 94 (2019): 140-160. <https://doi.org/10.1016/j.jeem.2019.02.003>

([https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2865542](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2865542))

Adrian, Tobias, Patrick Bolton, and Anouk Kleinnijenhuis. "The Great Carbon Arbitrage." *IMF Working Paper* No. 2022/107 (2023). <https://ssrn.com/abstract=4129572>

Heal, Geoffrey. "Climate Economics: A Meta-Review and Some Suggestions for Further Research." *Review of Environmental Economics and Policy* 1, no. 3 (2009): 4-21. <https://doi.org/10.1093/reep/ren014> ([https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1119218](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1119218))

Optional readings (Note: some of these are books and are not available online.)

Mas-Colell, Andreu, Michael Dennis Whinston, and Jerry R. Green. *Microeconomic Theory*. New York: Oxford University Press, 1995. Chapters 10.D & 11.

Dasgupta, Partha S., and Geoffrey M. Heal. *Economic Theory and Exhaustible Resources*. Cambridge University Press, 1979. Chapter on Hotelling's Rule.

Hardin, Garrett. "The Tragedy of the Commons." *Science* 162, no. 3859 (1968): 1243-1248. <https://www.jstor.org/stable/1724745>

Ostrom, Elinor. *Governing the Commons: The Evolution of Institutions for Collective Action*. (1990, out of print). Cambridge University Press

Stern, Nicholas Herbert. *The Economics of Climate Change: The Stern Review*. Cambridge University press, 2007.

[http://mudancasclimaticas.cptec.inpe.br/~rmclima/pdfs/destaques/sternreview\\_report\\_complete.pdf](http://mudancasclimaticas.cptec.inpe.br/~rmclima/pdfs/destaques/sternreview_report_complete.pdf)

Weitzman, Martin L. "A review of the Stern Review on the economics of climate change." *Journal of Economic Literature* 45, no. 3 (2007): 703-724. <https://doi.org/10.1257/jel.45.3.703>

Nordhaus, William. *The Climate Casino: Risk, uncertainty, and economics for a warming world*. Yale University Press, 2013.

Llavador, Humberto, John E. Roemer, and Joaquim Silvestre. *Sustainability for a warming planet*. Harvard University Press, 2015. <https://www.jstor.org/stable/j.ctvj2xrr>

Auffhammer, Maximilian. "Quantifying economic damages from climate change." *Journal of Economic Perspectives* 32, no. 4 (2018): 33-52. <https://doi.org/10.1257/jep.32.4.33>

Bilal, Adrien, and Esteban Rossi-Hansberg. "Anticipating Climate Change Across the United States." *Working Paper* (2025). <https://rossihansberg.economics.uchicago.edu/ACCAUS.pdf>

Du, Kerui . Yuqi Wang, and Zhiting Wu. "An Environmental Stochastic Discount Factor for the Implicit Environmental Price." *Working Paper* (2025). <https://dx.doi.org/10.2139/ssrn.5755203>

## CLASS 4: Corporate Carbon Accounting and Disclosures

Professor Stefan Reichelstein, Stanford University and Mannheim University

### Required readings (5)

Downar, Benedikt, Jürgen Ernstberger, Stefan Reichelstein, Sebastian Schwenen, and Aleksandar Zaklan. "The impact of carbon disclosure mandates on emissions and financial operating performance." *Review of Accounting Studies* 26 (2021): 1137-1175. <https://doi.org/10.1007/s11142-021-09611-x>.  
(<https://dx.doi.org/10.2139/ssrn.3853935>)

Tomar, Sorabh "Greenhouse Gas Disclosure and Emissions Benchmarking" *Journal of Accounting Research* 61 no. 2 (2023). <https://onlinelibrary.wiley.com/doi/abs/10.1111/1475-679X.12473>  
(<https://dx.doi.org/10.2139/ssrn.3448904>)

Goex, Raphael, and Alexander Wagenhofer. "Carbon Emissions Reporting, Investment Incentives and Efficiency." Working Paper, University of Zürich. <https://dx.doi.org/10.2139/ssrn.5990256>

Asam, Dominik, Jürgen Ernstberger, and Gunther Friedl. "How Carbon Accounting Supports Corporate Decarbonization." *Foundations and Trends in Accounting* (2025). <http://dx.doi.org/10.1561/1400000080-3>

Reichelstein, Stefan. "Corporate Carbon Accounting: Balance Sheets and Flow Statements". *Review of Accounting Studies* (2024). <https://link.springer.com/article/10.1007/s11142-024-09830-y>  
(<https://dx.doi.org/10.2139/ssrn.4672099>)

### Optional readings

Dechow, Patirica M., and Richard G. Sloan. "Business Sustainability Reporting & Analysis," Cambridge Business Publishers (2025). Chapters 2-4. <https://mybusinesscourse.com/book/bsra1e>

Christensen, Hans B., Eric Floyd, Lisa Yao Liu, and Mark Maffett. "The Real Effects of Mandated Information on Social Responsibility in Financial Reports: Evidence from Mine-safety Records". *Journal of Accounting and Economics*. 64 (2017): 284–304. <https://doi.org/10.1016/j.jacceco.2017.08.001>.  
(<https://dx.doi.org/10.2139/ssrn.2680296>)

Cohen, Shira, Igor Kadach, Gaizka Ormazabal, and Stefan Reichelstein. "Executive Compensation Tied to ESG Performance: International Evidence." *Journal of Accounting Research* (2023).  
<https://onlinelibrary.wiley.com/doi/full/10.1111/1475-679X.12481>

Hale, Thomas, et al. "Assessing the Rapidly Emerging Landscape of Net Zero Targets." *Climate Policy*, 22, no. 1 (2022), 18-29. <https://doi.org/10.1080/14693062.2021.2013155>

Glenk, Gunther, Rebecca Meier, and Stefan Reichelstein. "Constructing Carbon Abatement Cost Curves." *The Accounting Review* (Forthcoming). [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=4434830](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4434830)

## CLASS 5: Climate and Asset Pricing - Theory

Professors Stefano Giglio, Yale School of Management and Marcin Kacperczyk, Imperial College Business School

This part of the class will introduce a variety of ways climate risks have been modeled in finance. The class will cover both structural and reduced-form equilibrium models of climate risks and their effects on asset prices.

### Introductory reading

Giglio, Stefano, Bryan Kelly, and Johannes Stroebe. "Climate finance." *Annual Review of Financial Economics* 13 (2021): 15-36. <https://doi.org/10.1146/annurev-financial-102620-103311>

### Required readings (7)

Kacperczyk, Marcin T. "What Is the Carbon Premium a Premium On?." *Working Paper*. <http://dx.doi.org/10.2139/ssrn.6058034>

Bansal, Ravi, Dana Kiku, and Marcelo Ochoa. "Climate change risk." *Federal Reserve Bank of San Francisco Working Paper* (2019). <https://www.frbsf.org/economic-research/events/2019/november/economics-of-climate-change/files/Paper-5-2019-11-8-Kiku-1PM-1st-paper.pdf>

Pástor, Ľuboš, Robert F. Stambaugh, and Lucian A. Taylor. "Sustainable investing in equilibrium." *Journal of Financial Economics* 142, no. 2 (2021): 550-571. <https://doi.org/10.1016/j.jfineco.2020.12.011> (<https://dx.doi.org/10.2139/ssrn.3498354>)

Giglio, Stefano, Matteo Maggiori, Krishna Rao, Johannes Stroebe, and Andreas Weber. "Climate change and long-run discount rates: Evidence from real estate." *The Review of Financial Studies* 34, no. 8 (2021): 3527-3571. <https://doi.org/10.1093/rfs/hhab032> ([https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2696853](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2696853))

Bolton, Patrick, and Marcin Kacperczyk. "Global Pricing of Carbon-Transition Risk." *Journal of Finance* 78, no 6 (2023). 3677-3754. <https://doi.org/10.1111/jofi.13272> (<https://dx.doi.org/10.2139/ssrn.3550233>)

Cenedese, Gino, Shangqi Han, and Marcin T. Kacperczyk. "Carbon-transition risk and net-zero portfolios." *Imperial College Working Paper* (2024). <https://ssrn.com/abstract=4565220>

Pástor, Ľuboš, Robert F. Stambaugh, and Lucian A. Taylor. "Dissecting green returns." *Journal of Financial Economics* 146, no. 2 (2022): 403-424. <https://doi.org/10.1016/j.jfineco.2022.07.007> (<https://dx.doi.org/10.2139/ssrn.3864502>)

### Optional readings

Barnett, Michael, William Brock, and Lars Peter Hansen. "Pricing uncertainty induced by climate change." *The Review of Financial Studies* 33, no. 3 (2020): 1024-1066. <https://doi.org/10.1093/rfs/hhz144> (<https://dx.doi.org/10.2139/ssrn.3440301>)

Heinkel, Robert, Alan Kraus, and Josef Zechner. "The effect of green investment on corporate behavior." *Journal of Financial and Quantitative Analysis* 36, no. 4 (2001): 431-449. <https://doi.org/10.2307/2676219>

Pedersen, Lasse Heje, Shaun Fitzgibbons, and Lukasz Pomorski. "Responsible investing: The ESG-efficient frontier." *Journal of Financial Economics* 142, no. 2 (2021): 572-597. <https://doi.org/10.1016/j.jfineco.2020.11.001> (<https://dx.doi.org/10.2139/ssrn.3466417>)

Weitzman, Martin L. "Fat tails and the social cost of carbon." *American Economic Review* 104, no. 5 (2014): 544-546. <https://doi.org/10.1257/aer.104.5.544>

## CLASS 6: Climate and Asset Pricing - Empirics

Professors Stefano Giglio, Yale School of Management and Marcin Kacperczyk, Imperial College Business School

This lecture will expose you to the ideas underlying physical and transition risk in financial markets. We will discuss the basic empirical framework in which these problems can be studied and discuss empirical findings consistent with this framework. Our focus will be on equity markets but we will also discuss auxiliary predictions from other markets.

### Required Readings (4)

Acharya, Viral V., Tim Johnson, Suresh Sundaresan, and Tuomas Tomunen. "Is physical climate risk priced? Evidence from regional variation in exposure to heat stress." *Working Paper* (2024). [https://pages.stern.nyu.edu/~sternfin/vacharya/public\\_html/pdfs/working-papers/Acharya%20et%20al%20\(2024\).pdf](https://pages.stern.nyu.edu/~sternfin/vacharya/public_html/pdfs/working-papers/Acharya%20et%20al%20(2024).pdf)

Cenedese, Gino, Shangqi Han, and Marcin Kacperczyk. "Carbon-transition risk and net-zero portfolios." (2024). [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=4565220](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4565220)

Hong, Harrison, Frank Weikai Li, and Xu Jiangmin. "Climate risks and market efficiency." *Journal of Econometrics*, 208. (2019). 265-281. <https://doi.org/10.1016/j.jeconom.2018.09.015>  
(<https://dx.doi.org/10.2139/ssrn.2776962>)

Pastor, Lubos, Robert Stambaugh, and Lucian Taylor. "Dissecting Green Returns." *Journal of Financial Economics* (2022). <https://doi.org/10.1016/j.jfineco.2022.07.007>  
([https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3376611](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3376611))

### Optional Readings

Baker, Malcolm, Daniel Bergstresser, George Serafeim, and Jeffrey Wurgler. "The pricing and ownership of US green bonds." *Annual Review of Financial Economics*, 14 (2022). <https://doi.org/10.1146/annurev-financial-111620-014802>

Bernstein, Asaf, Matthew T. Gustafson, and Ryan Lewis. "Disaster on the horizon: The price effect of sea level rise." *Journal of Financial Economics*, 134(2). (2019). 253-272. <https://www.sciencedirect.com/science/article/pii/S0304405X19300807>  
([https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3073842](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3073842).)

Bolton, Patrick, Zachery Halem, and Marcin Kacperczyk. "The financial cost of carbon." *Journal of Applied Corporate Finance*. (2022). 34(2), 17-29. <https://onlinelibrary.wiley.com/doi/full/10.1111/jacf.12502>

Bolton, Patrick, and Marcin Kacperczyk (2021). "Do investors care about carbon risk?". *Journal of Financial Economics*, 142(2), 517-549. <https://doi.org/10.1016/j.jfineco.2021.05.008>  
(<https://dx.doi.org/10.2139/ssrn.3398441>)

Bolton, Patrick, Marcin T. Kacperczyk, and Frédéric Samama. Net-zero carbon portfolio alignment. *Financial Analysts Journal* (2022). 78(2), 19-33. <https://doi.org/10.1080/0015198X.2022.2033105>

Goldsmith-Pinkham, Paul, Matthew T. Gustafson, Ryan C. Lewis, and Michael Schwert. "Sea-Level Rise Exposure and Municipal Bond Yields." *The Review of Financial Studies* 36. (2023). 4588–4635. <https://doi.org/10.1093/rfs/hhad041> ([https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=4282510](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4282510))

Murfin, Justin, and Matthew Spiegel. "Is the risk of sea level rise capitalized in residential real estate?". *The Review of Financial Studies*, 33. (2020). 1217-1255. <https://doi.org/10.1093/rfs/hhz134>

Painter, Marcus. "An inconvenient cost: The effects of climate change on municipal bonds." *Journal of Financial Economics*, 135(2). (2020). 468-482. <https://doi.org/10.1016/j.jfineco.2019.06.006> (<https://dx.doi.org/10.2139/ssrn.3167379>)

## CLASS 7: Sustainable Finance – Investing in Equity

Professors Caroline Flammer, Columbia University and Laura Starks, University of Texas Austin

### Required readings (4)

Flammer, Caroline. “Does Corporate Social Responsibility Lead to Superior Financial Performance? A Regression Discontinuity Approach.” *Management Science* 41 (2015): 2549-2824.  
<https://doi.org/10.1287/mnsc.2014.2038> (<https://dx.doi.org/10.2139/ssrn.2146282>)

Flammer, Caroline, Michael W. Toffel, and Kala Viswanathan. “Shareholder Activism and Firms’ Voluntary Disclosure of Climate Change Risks.” *Strategic Management Journal* 42 (2021): 1850-1879.  
<https://doi.org/10.1002/smj.3313> (<https://dx.doi.org/10.2139/ssrn.3468896>)

Ilhan, Emir, Philipp Krueger, Zacharias Sautner, and Laura T. Starks. “Climate Risk Disclosure and Institutional Investors.” *Review of Financial Studies* 36 (2022): 2617-2650.  
<https://doi.org/10.1093/rfs/hhad002> (<https://dx.doi.org/10.2139/ssrn.3437178>)

Starks, Laura, Parth Venkat and Qifei Zhu. “Corporate ESG Profiles and Investor Horizons.” *Journal of Finance* (Forthcoming). [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3049943](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3049943)

### Optional readings

Alok, Shashwat, Nitin Kumar, and Russ Wermers. “Do Fund Managers Misestimate Climatic Disaster Risk?” *Review of Financial Studies* 33 (2020): 1146-1183. <https://doi.org/10.1093/rfs/hhz143>  
(<https://dx.doi.org/10.2139/ssrn.34279030>)

Berg, Florian, Julian F. Kolbel, and Roberto Rigobon. “Aggregate Confusion: The Divergence of ESG Ratings.” *Review of Finance* 26 (2022): 1315-1344. <https://doi.org/10.1093/rof/rfac033>  
(<https://dx.doi.org/10.2139/ssrn.3438533>)

Bolton, Patrick, Zachery Halem, and Marcin T. Kacperczyk. “The Financial Cost of Carbon.” *Journal of Applied Corporate Finance* 34 (2022): 17-29. <https://doi.org/10.1111/jacf.12502>

De Angelis, Tiziano, Peter Tankov, and Olivier David Zerbib. “Climate Impact Investing.” *Management Science* (2022). <https://doi.org/10.1287/mnsc.2022.4472> (<https://dx.doi.org/10.2139/ssrn.3562534>)

Dimson, Elroy, Oğuzhan Karakaş, and Xi Li. “Active ownership.” *The Review of Financial Studies* 28, no. 12 (2015): 3225-3268. <https://doi.org/10.1093/rfs/hhv044>

Dimson, Elroy, Oğuzhan Karakaş, and Xi Li. “Coordinated Engagements.” *Journal of Finance* (Forthcoming). [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3209072](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3209072)

Dyck, Alexander, Karl V. Lins, Lukas Roth, and Hannes F. Wagner. “Do Institutional Investors Drive Corporate Social Responsibility? International Evidence.” *Journal of Financial Economics* 131 (2019): 693-714. <https://doi.org/10.1016/j.jfineco.2018.08.013> (<https://dx.doi.org/10.2139/ssrn.2708589>)

Gantchev, Nickolay, Mariassunta Giannetti, and Rachel Li. “Does Money Talk? Divestitures and Corporate Environmental and Social Policies.” *Review of Finance* 26 (2022): 1469-1508.  
<https://doi.org/10.1093/rof/rfac029> (<https://dx.doi.org/10.2139/ssrn.3409455>)

Krueger, Philipp, Zacharias Sautner, and Laura T Starks. "The Importance of Climate Risks for Institutional Investors." *Review of Financial Studies* 33 (2020): 1067-1111.  
<https://doi.org/10.1093/rfs/hhz137> (<https://dx.doi.org/10.2139/ssrn.3235190>)

Starks, Laura T. "Presidential Address: Sustainable Finance and ESG Issues – Value Versus Values." *Journal of Finance* 78 (2023): 1837-1872. <https://doi.org/10.1111/jofi.13255>

Pástor, Ľuboš, Robert F. Stambaugh, and Lucian A. Taylor. "Green Tilts." *Journal of Financial Economics* 174 (2025) [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=4464537](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4464537)

## CLASS 8: Sustainable Finance – Investing in Debt

Professors Caroline Flammer, Columbia University and Laura Starks, University of Texas Austin

### Required readings (4)

Flammer, Caroline. “Corporate Green Bonds.” *Journal of Financial Economics* 142 (2021): 499-516. <https://doi.org/10.1016/j.jfineco.2021.01.010> (<https://dx.doi.org/10.2139/ssrn.3125518>)

Flammer, Caroline, Thomas Giroux, and Geoffrey Heal. “Blended Finance.” *NBER Working Paper No. 32287*. <https://ssrn.com/abstract=4770779>

Goldsmith-Pinkham, Paul, Matthew T. Gustafson, Ryan C. Lewis, and Michael Schwert. “Sea-level rise exposure and municipal bond yields.” *The Review of Financial Studies* 36, no. 11 (2023): 4588-4635. <https://doi.org/10.1093/rfs/hhad041> ([https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=4282510](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4282510))

Seltzer, Lee H., Laura Starks, and Qifei Zhu. “Climate regulatory risk and corporate bonds.” *Nanyang Business School Research Paper No. 20-05, FRB of New York Staff Report No. 1014* (2023). <https://ssrn.com/abstract=3563271>

### Optional readings

Baker, Malcolm, Daniel Bergstresser, George Serafeim, and Jeffrey Wurgler. “The Pricing and Ownership of US Green Bonds.” *Annual Review of Financial Economics* 14 (2022): 415-437. <https://doi.org/10.1146/annurev-financial-111620-014802>

D'Amico, Stefania, Johannes Klausmann, and N. Aaron Pancost. “The benchmark greenium.” Working Paper (2024). <https://ssrn.com/abstract=4128109>

Fich, Eliezer, and Guosong Xu. “Do Salient Climatic Risks Affect Shareholder Voting?” *Review of Finance* 29 (2025): 567-602. <https://academic.oup.com/rof/article/29/2/567/7958596> ([https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3895071](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3895071))

Flammer, Caroline. “Green Bonds: Effectiveness and Implications for Public Policy.” *Environmental and Energy Policy and the Economy* 1 (2020): 95–128. <https://doi.org/10.1086/706794> ([https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3405137](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3405137))

Heinkel, Robert, Alan Kraus, and Josef Zechner. “The Effect of Green Investment on Corporate Behavior.” *The Journal of Financial and Quantitative Analysis* 36 (2001): 431-449. <https://doi.org/10.2307/2676219>

Kim, Sehoon, Nitish Kumar, Jongsub Lee, and Junho Oh. “ESG Lending.” *Journal of Financial Economics* 173 (2025). <https://www.sciencedirect.com/science/article/pii/S0304405X25001588>. ([https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3865147](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3865147))

Kölbel, Julian F., and Adrien-Paul Lambillon. “Who pays for sustainability? An analysis of sustainability-linked bonds.” *Swiss Finance Institute Research Paper 23-07* (2023). <https://ssrn.com/abstract=4007629>

Larcker, David F., and Edward M. Watts. “Where's the greenium?.” *Journal of Accounting and Economics* 69, no. 2-3 (2020): 101312. <https://doi.org/10.1016/j.jacceco.2020.101312>

Pastor, Lubos, Robert Stambaugh, and Lucian Taylor. "Dissecting Green Returns." *Journal of Financial Economics* (2022). <https://doi.org/10.1016/j.jfineco.2022.07.007>  
([https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3376611](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3376611))

Zerbib, Olivier David. "The Effect of Pro-Environmental Preferences on Bond Prices: Evidence from Green Bonds." *Journal of Banking & Finance* 98 (2019): 39–60.  
<https://doi.org/10.1016/j.jbankfin.2018.10.012>

## CLASS 9: Climate, Banking, and Insurance

Professors Marcin Kacperczyk, Imperial College Business School, and Benjamin Keys, University of Pennsylvania

### **Climate risk and banking (Professor Kacperczyk):**

#### Required Readings (3)

\*Altavilla, Carlo, Miguel Boucinha, Marco Pagano, and Andrea Polo. "Climate Risk, Bank Lending and Monetary Policy." *European Central Bank Working Paper* (2024).  
[https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=4918451](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4918451)

\*Jung, Hyeyoon, Robert Engle, and Richard Berner. "CRISK: Measuring the Climate Risk Exposure of the Financial System." *Federal Reserve Bank of New York Staff Reports* (2023).  
[https://www.newyorkfed.org/medialibrary/media/research/staff\\_reports/sr977.pdf/1000](https://www.newyorkfed.org/medialibrary/media/research/staff_reports/sr977.pdf/1000)

\*Kacperczyk, Marcin, and José-Luis Peydró. "Carbon Emissions and the Bank Lending Channel." *Working Paper* (2024). [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3915486](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3915486)

#### Optional Readings

Green, Daniel, and Vallee, Boris. "Measurement and Effects of Bank Exit Policies." *Journal of Financial Economics* (2024). <https://www.sciencedirect.com/science/article/abs/pii/S0304405X25001370>  
([https://www.hbs.edu/ris/Publication%20Files/draft\\_Coal\\_divestment\\_7a4fa45e-b0db-480c-a805-ccca05efc23b.pdf0](https://www.hbs.edu/ris/Publication%20Files/draft_Coal_divestment_7a4fa45e-b0db-480c-a805-ccca05efc23b.pdf0))

Ivanov, Ivan, Mathias Kruttli, and Sumudu Watugala. "Banking on carbon: Corporate lending and cap-and-trade policy." *The Review of Financial Studies* 37(3). (2024). 1640-1684.  
<https://doi.org/10.1093/rfs/hhad085> ([https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3650447](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3650447))

Morse, Adair and Parinitha Sastry. "The Economics of Net-Zero Banking." *Annual Review of Financial Economics*. (2025).  
<https://www.annualreviews.org/content/journals/10.1146/annurev-financial-112923-021641>  
([https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=5032530](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5032530))

### **Climate risk and insurance (Professor Keys):**

#### Required readings (5):

\*Keys, Benjamin J., and Philip Mulder. "Property Insurance and Disaster Risk: New Evidence from Mortgage Escrow Data." *NBER Working Paper No. 32579* (2024). <https://doi.org/10.3386/w32579>

\*Oh, Sangmin, Ishita Sen, and Ana-Maria Tenekedjieva. "Pricing of Climate Risk Insurance: Regulation and Cross-Subsidies." *SSRN Working Paper No. 3762235* (2022).  
[https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3762235](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3762235) (forthcoming *Journal of Finance*)

\*Boomhower, Judson, Meredith Fowlie, Jacob Gellman, and Andrew Plantinga. "How Are Insurance Markets Adapting to Climate Change? Risk Classification and Pricing in the Market for Homeowners Insurance." *NBER Working Paper No. 32625* (2024). <https://doi.org/10.3386/w32625>

\*Ge, Shan, Stephanie Johnson, and Nitzan Tzur-Ilan. "Rising Insurance Premiums Increase Mortgage Delinquency and Drive Relocation to Safer Areas." SSRN Working Paper No. 4992281 (2024).

<https://ssrn.com/abstract=4992281>

\*Sen, Ishita, Parinitha Sastry, and Ana-Maria Tenekedjieva. "When Insurers Exit: Climate Losses, Fragile Insurers, and Mortgage Markets." SSRN Working Paper No. 4674279 (December 2023).

[https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=4674279](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4674279)

Optional readings:

Cookson, J. Anthony, Emily A. Gallagher, and Philip Mulder. "Coverage Neglect in Homeowners Insurance." SSRN Working Paper No. 5057551 (2024).

[https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=5057551](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5057551)

Ge, Shan, Ammon Lam, and Ryan Lewis. "The Effect of Insurance Premiums on the Housing Market and Climate Risk Pricing." SSRN Working Paper No. 4192699 (2022).

[https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=4192699](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4192699)

Mulder, Philip. "Mismeasuring Risk: The Welfare Effects of Flood Risk Information." SSRN Working Paper No. 4966795 (2024).

[https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=4966795](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4966795)

Sastry, Parinitha. "Who Bears Flood Risk? Evidence from Mortgage Markets in Florida." SSRN Working Paper No. 4306291 (2022).

[https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=4306291](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4306291)

Wagner, Katherine R. H. "Adaptation and Adverse Selection in Markets for Natural Disaster Insurance." *American Economic Journal: Economic Policy* 14, no. 3 (2022): 380–421.

<https://doi.org/10.1257/pol.20200378>

Koijen, Ralph S. J., and Motohiro Yogo. "The Cost of Financial Frictions for Life Insurers." *American Economic Review* 105, no. 1 (2015): 445–75.

<https://doi.org/10.1257/aer.20121036>

Einav, Liran, Amy Finkelstein, and Mark R. Cullen. "Estimating Welfare in Insurance Markets Using Variation in Prices." *Quarterly Journal of Economics* 125, no. 3 (2010): 877–921.

<https://doi.org/10.1162/qjec.2010.125.3.877>

## CLASS 10: Climate and Corporate Finance

Professors Peter Tufano, Harvard University and Zacharias Sautner, University of Zurich

Required readings (7) noted with asterisks in sections below (\*)

### Corporate climate and nature exposures (1)

Addoum, Jawad M., David T. Ng, and Ariel Ortiz-Bobea. "Temperature shocks and establishment sales." *The Review of Financial Studies* 33, no. 3 (2020): 1331-1366. <https://doi.org/10.1093/rfs/hhz126>

\*Gjerde, Snorre, Zacharias Sautner, Alexander Wagner, and Alexis Wegerich. "Corporate nature risk perceptions." *Review of Finance*, forthcoming. <https://doi.org/10.1093/rof/rfaf050>

Li, Qing, Hongyu Shan, Yuehua Tang, and Vincent Yao. "Corporate climate risk: Measurements and responses." *The Review of Financial Studies*, 37, no 6 (2024):1778–1830. <https://doi.org/10.1093/rfs/hhad094>

Li, Xia. "Physical climate risk and firms' adaptation strategy." *Strategic Management Journal* 46, no. 3 (2025): 750-789. <https://doi.org/10.1002/smj.3674>

Sautner, Zacharias, Laurence Van Lent, Grigory Vilkov, and Ruishen Zhang. "Firm-level climate change exposure." *The Journal of Finance* 78, no. 3 (2023): 1449-1498. <https://doi.org/10.1111/jofi.13219>

### Corporate (in)action, collaboration and competition (4)

Aldy, Joseph E., Patrick Bolton, Marcin Kacperczyk, and Zachery M. Halem. "Behind schedule: The corporate effort to fulfill climate obligations." *Journal of Applied Corporate Finance* 35, no. 2 (2023): 26–34. <https://doi.org/10.1111/jacf.12560>

Bolton, Patrick and Marcin Kacperczyk. "Firm commitments." *Columbia Business School Research Paper* (2025). <https://ssrn.com/abstract=3840813>

\*Carradori, Olimpia, Felix von Meyerinck, and Zacharias Sautner. "Insurers' carbon underwriting policies." *SFI Working Paper* (2025). <https://ssrn.com/abstract=5285182>

\*Gasparini, M. and P. Tufano, "An Empirical Examination of Business Climate Alliances: Effective and/or Harmful?" *Harvard Business School Working Paper* (2025). <https://ssrn.com/abstract=5253936>

\*Kim, Dasol, Luke Olson, and Toan Phan. "Bank competition and strategic adaptation to climate change". *FRB Richmond Working Paper* (2024). <https://ssrn.com/abstract=4914699>

\*Leippold, Markus, Tingyu Yu, and Zacharias Sautner. Corporate climate lobbying. *SFI Working Paper* (2025). <https://ssrn.com/abstract=4711812>

Shive, Sophie A. and Margaret M. Forster. "Corporate governance and pollution externalities of public and private firms." *The Review of Financial Studies* 33, no. 3 (2020): 1296-1330. <https://doi.org/10.1093/rfs/hhz079>

### Carbon taxes and other levers (2)

Allen, Franklin, Adelina Barbalau, and Federica Zeni. "Reducing carbon using regulatory and financial market tools." *Imperial College Working Paper* (2025). <https://ssrn.com/abstract=4357160>

Fan, Grace, and Xi Wu. "Going Green: The governance role of environmental regulations on firm innovation and value." *SMU School of Accountancy Research Paper* (2022). <https://ssrn.com/abstract=4098403>

\*Martinsson, Gustav, Per Stromberg, Laszlo Sajtos, and Christian J. Thomann. "The effect of carbon pricing on firm emissions: Evidence from the Swedish CO<sub>2</sub> tax." *The Review of Financial Studies* 37, no. 6 (2024): 1848-1886. <https://doi.org/10.1093/rfs/hhad097>

\*Strechmesser et al. "Climate Policies that achieved major emissions reductions: Global evidence from two decades." *Science* 385 (2024). 884–892  
<https://cdn-ceo-ca.s3.amazonaws.com/1jcjv2f-science.adl6547.pdf>

### Emissions reduction, offshoring and greenwashing

Aldy, Joseph E., Patrick Bolton, Zachery Halem, Marcin T. Kacperczyk, and Peter R. Orszag. "Show and tell: An analysis of corporate climate messaging and its financial impacts." *Imperial College Working Paper* (2024). <https://ssrn.com/abstract=4418347>

Berg, Tobias, Lin Ma, and Daniel Streitz. "Out of sight, out of mind: Divestments and the global reallocation of pollutive assets." *Goethe University Frankfurt Working Paper* (2025). <https://ssrn.com/abstract=4368113>

Dai, Rui, Rui Duan, Hao Liang, and Lilian Ng. "Outsourcing climate change." *ECGI Working Paper* (2024). <https://ssrn.com/abstract=3765485>

Duchin, Ran, Janet Gao, and Qiping Xu. "Sustainability or greenwashing: Evidence from the asset market for industrial pollution." *The Journal of Finance* 80, no. 2 (2025), 699–745.  
<https://onlinelibrary.wiley.com/doi/10.1111/jofi.13412>

Ecker, Frank and Tanja Keeve. "Managing corporate emission disclosures through divestitures." *Frankfurt School of Finance & Management Working Paper* (2025). <https://ssrn.com/abstract=4517339>

## CLASS 11: Nature and biodiversity

Professors Caroline Flammer, Columbia University, Stefano Giglio, Yale University, and Johannes Stroebel, New York University

Required reading (2) noted with asterisks in sections below (\*)

### Overview

\*Giglio, Stefano, Theresa Kuchler, Johannes Stroebel, and Olivier Wang. "Nature and biodiversity loss: A research agenda for financial economics." *Journal of Finance: Insights & Perspectives*, Forthcoming. [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=5544620](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5544620)

\*Flammer, Caroline, Thomas Giroux, and Geoffrey M. Heal. "Biodiversity Finance." *Journal of Financial Economics* 164 (2025): 1–15. <https://doi.org/10.1016/j.jfineco.2024.103987>  
([https://www.columbia.edu/~cf2870/PDFs/Biodiversity-Finance\\_FlammerGirouxHeal\\_JFE2025.pdf](https://www.columbia.edu/~cf2870/PDFs/Biodiversity-Finance_FlammerGirouxHeal_JFE2025.pdf))

### Nature and Biodiversity Loss

Flammer, Caroline, Thomas Giroux, and Geoffrey M. Heal. "Blended Finance." National Bureau of Economic Research (2024). <https://doi.org/10.3386/w32287>  
([https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=4770779](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4770779))

Frank, Eyal, and Anant Sudarshan. (2024). "The social costs of keystone species collapse: Evidence from the decline of vultures in India." *American Economic Review* 114, no. 10 (2024): 3007-3040. <https://www.aeaweb.org/articles?id=10.1257/aer.20230016>  
([https://www.anantsudarshan.com/uploads/1/0/2/6/10267789/vultures\\_manuscript-2023.pdf](https://www.anantsudarshan.com/uploads/1/0/2/6/10267789/vultures_manuscript-2023.pdf))

Garel, Alexandre, Arthur Romec, Zacharias Sautner, and Alexander F. Wagner. "Do investors care about biodiversity?" *Review of Finance* 28, no.4 (2024): 1151–1186. <https://academic.oup.com/rof/article/28/4/1151/7645412>  
([https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=4398110](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4398110))

Garel, Alexandre, Arthur Romec, Zacharias Sautner, and Alexander F. Wagner. "Firm-level nature dependence." *Review of Finance*, Forthcoming. [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=5196826](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5196826)

Giglio, Stefano, Theresa Kuchler, Johannes Stroebel, and Xuran Zeng. "Biodiversity risk." *Review of Finance* (Forthcoming). <https://doi.org/10.1093/rof/rfaf063>  
([https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=4410107](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4410107))

Giglio, Stefano, Theresa Kuchler, Johannes Stroebel, and Olivier Wang "The economics of biodiversity loss." *NBER Working Paper No. 32678* (2024). <https://doi.org/10.3386/w32678>  
([https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=4894672](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4894672))

Giglio, Stefano, Theresa Kuchler, Johannes Stroebel, and Olivier Wang. "Nature Loss and Climate Change: The Twin-Crisis Multiplier." *AEA Papers and Proceedings* 115 (2025): 409-414

Gjerde, Snorre, Zacharias Sautner, Alexander F. Wagner, and Alexis Wegerich. "Corporate Nature Risk Perceptions." *Review of Finance* (Forthcoming). <https://doi.org/10.1093/rof/rfaf050>  
([https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=5224376](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5224376))

## CLASS 12: Climate and Household Finance / Wrap-up

Professor Johannes Stroebe, New York University, and FECS faculty

In the first hour of this class, Prof. Stroebe will discuss climate and household finance. In the second hour of the final class, the faculty will discuss their insights about the emerging field and we will hear a perspective from practice about the evolution of climate finance.

Required readings (5) noted with asterisks in sections below (\*)

### **Overview**

Canals-Cerda, José J., and Raluca Roman. "Climate Change and Consumer Finance: A Very Brief Literature Review." *FRB of Philadelphia Payment Cards Center Discussion Paper* 21-4 (2021).  
<https://ssrn.com/abstract=3937770>

### **Climate Risk and Household Investment Decisions**

Bauer, Rob, Tobias Ruof, and Paul Smeets. "Get real! Individuals prefer more sustainable investments." *The Review of Financial Studies*, 34(8), 3976-4043. <https://doi.org/10.1093/rfs/hhab037>  
(<https://dx.doi.org/10.2139/ssrn.3287430>)

\*Giglio, Stefano, Matteo Maggiori, Johannes Stroebe, Zhenhao Tan, Stephen Utkus, and Xiao Xu. "Four facts about ESG beliefs and investor portfolios." Four facts about ESG beliefs and investor portfolios, *Journal of Financial Economics* (2024). <https://ssrn.com/abstract=4415012>

\*Engle, Robert F., Stefano Giglio, Bryan Kelly, Heebum Lee, and Johannes Stroebe. "Hedging climate change news." *The Review of Financial Studies*, 33, vol. 3 (2020):1184-1216.  
<https://doi.org/10.1093/rfs/hhz072> (<https://dx.doi.org/10.2139/ssrn.3317570>)

Pástor, Ľuboš, Robert F. Stambaugh, and Lucian A. Taylor. "Dissecting green returns." *Journal of Financial Economics* 146, no. 2 (2022): 403-424. <https://doi.org/10.1016/j.jfineco.2022.07.007>  
(<https://dx.doi.org/10.2139/ssrn.3864502>)

### **Climate Risk and Housing Markets**

Baldauf, Markus, Lorenzo Garlappi, and Constantine Yannelis. "Does climate change affect real estate prices? Only if you believe in it." *The Review of Financial Studies* 33, no. 3 (2020): 1256-1295.  
<https://doi.org/10.1093/rfs/hhz073> (<https://dx.doi.org/10.2139/ssrn.3240200>)

Bernstein, Asaf, Matthew T. Gustafson, and Ryan Lewis. "Disaster on the horizon: The price effect of sea level rise." *Journal of Financial Economics* 134, no. 2 (2019): 253-272.  
<https://doi.org/10.1016/j.jfineco.2019.03.013> (<https://dx.doi.org/10.2139/ssrn.3073842>)

Bernstein, Asaf, Stephen B. Billings, Matthew T. Gustafson, and Ryan Lewis. "Partisan residential sorting on climate change risk." *Journal of Financial Economics* 146, no. 3 (2022): 989-1015.  
<https://doi.org/10.1016/j.jfineco.2022.03.004> (<https://dx.doi.org/10.2139/ssrn.3712665>)

Giglio, Stefano, Matteo Maggiori, Krishna Rao, Johannes Stroebe, and Andreas Weber. "Climate change and long-run discount rates: Evidence from real estate." *The Review of Financial Studies* 34, no. 8 (2021):

3527-3571. <https://doi.org/10.1093/rfs/hhab032>  
([https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2696853](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2696853))

### **Climate Risk and Mortgage Markets**

Ouazad, Amine, and Matthew E. Kahn. "Mortgage finance and climate change: Securitization Dynamics in the Aftermath of Natural Disasters." *The Review of Financial Studies* 35, no. 8 (2022): 3617-3665.  
[https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3461490](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3461490)

Issler, Paulo, Richard Stanton, Carles Vergara, and Nancy Wallace. "Housing and mortgage markets with climate risk: Evidence from California wildfires." *Working Paper* (2024).  
<https://ssrn.com/abstract=3511843>

### **Climate Risk and Insurance Markets**

Ge, Shan, Ammon Lam, and Ryan Lewis. "The Effect of Insurance Premiums on the Housing Market and Climate Risk Pricing." *Working Paper*. (2023) <https://ssrn.com/abstract=4192699>

Mulder, Philip. "Mismeasuring risk: The welfare effects of flood risk information." *Working Paper* (2024)  
<https://ssrn.com/abstract=4966795>

Keys, Benjamin J., and Philip Mulder. "Property Insurance and Disaster Risk: New Evidence from Mortgage Escrow Data." *NBER Working Paper No. 32579* (2024).  
[https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=4867443](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4867443)

Sastry, Parinitha. "Who bears flood risk? Evidence from mortgage markets in Florida." *Review of Finance* (Forthcoming). <https://ssrn.com/abstract=4306291>

Sastry, Parinitha, Ishita Sen, and Ana-Maria Tenekedjieva. "When insurers exit: Climate losses, fragile insurers, and mortgage markets." *SSRN Working Paper No. 4674279* (2024).  
<https://ssrn.com/abstract=4674279>

## **ELECTIVE 1: The Economics of the Energy Transition**

**11AM-12PM EST, Thursday March 5, 2026**

*Professor Geoffrey Heal, Columbia University*

Heal, Geoffrey, "Economic Aspects of the Energy Transition." *Environmental and Resource Economics* (2022). <https://link.springer.com/article/10.1007/s10640-022-00647-4>  
([https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3687922](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3687922))

Heal, Geoffrey. "Notes on the Economics of Energy Storage." *NBER Working Paper 22752*.  
[https://www.nber.org/system/files/working\\_papers/w22752/w22752.pdf](https://www.nber.org/system/files/working_papers/w22752/w22752.pdf)  
([https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2858062](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2858062))

Nassos Stylianou et al., "How Mega Batteries Are Unlocking an Energy Revolution," *Financial Times*, October 13, 2025, <https://iq.ft.com/mega-batteries/>.

Muir, Martha. "The Global Boom in Solar – With or Without the US." *Financial Times*, October 29, 2025.  
<https://www.ft.com/content/c4068478-c091-4e87-a3cd-5bfc71281ec8?syn-25a6b1a6=1>

## **ELECTIVE 2: Impact Investing in Private Markets**

**April 2nd, from 11:00 AM to 12:30 PM EST**

*Professors Deeksha Gupta, Johns Hopkins University, and Jan Starmans, Stockholm School of Economics*

This class examines impact investing in private markets, where investors explicitly pursue both financial returns and measurable social or environmental benefits. We will explore empirical evidence on how impact funds differ from traditional funds, alongside theoretical frameworks for modeling investor preferences when both financial and social objectives matter. The session covers recent research on the role of private equity in achieving impact, the implementation of impact investing, and the optimal allocation of socially responsible capital in illiquid markets.

### **Required readings (6)**

Barber, Brad M., Adair Morse, and Ayako Yasuda. "Impact Investing." *Journal of Financial Economics* 139 (2021): 162-185. <https://doi.org/10.1016/j.jfineco.2020.07.008>  
([https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2705556](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2705556))

Chowdhry, Bhagwan, Shaun William Davies, and Brian Waters. "Investing for Impact." *The Review of Financial Studies* 32 (2019): 864-904. <https://doi.org/10.1093/rfs/hhy068>  
([https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2437238](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2437238))

Cole, Shawn, Leslie Jeng, Josh Lerner, Natalia Rigol, and Benjamin N. Roth. "What Do Impact Investors Do Differently?" *NBER Working Paper No. 31898* (2023). <https://www.nber.org/papers/w31898>  
([https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=4233480](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4233480))

Gupta, Deeksha, Alexandr Kopytov, and Jan Starmans. "The Pace of Change: Socially Responsible Investing in Private Markets." *The Review of Financial Studies* (Forthcoming).  
<https://doi.org/10.1093/rfs/hhaf083> (<https://dx.doi.org/10.2139/ssrn.3896511>)

Heeb, Florian, Julian F. Kölbl, Falko Paetzold, and Stefan Zeisberger. "Do Investors Care About Impact?" *The Review of Financial Studies* 36 (2023): 1737-1787. <https://doi.org/10.1093/rfs/hhac066>  
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### **Optional readings**

Bellon, Aymeric. "Does Private Equity Ownership Make Firms Cleaner? The Role of Environmental Liability Risks." *The Review of Financial Studies* 38 (2025): 2517-2556.  
<https://doi.org/10.1093/rfs/hhaf035> (<https://dx.doi.org/10.2139/ssrn.3604360>)

Bonnefon, Jean-François, Augustin Landier, Parinitha Sastry, and David Thesmar. "The moral preferences of investors: Experimental evidence." *Journal of Financial Economics* 163 (2025): 103955.  
<https://doi.org/10.1016/j.jfineco.2024.103955> (<https://dx.doi.org/10.2139/ssrn.3458447>)

Duevski, Teodor, Chhavi Rastogi, and Tianhao Yao. "ESG Incidents and Fundraising in Private Equity." *Working Paper* (2023).

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Geczy, Christopher, Jessica S. Jeffers, David K. Musto, and Anne M. Tucker. "Contracts with (Social) Benefits: The Implementation of Impact Investing." *Journal of Financial Economics* 142 (2021): 697-718.

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Green, Daniel, and Benjamin N. Roth. "The Allocation of Socially Responsible Capital." *The Journal of Finance* 80 (2025): 755-781. <https://doi.org/10.1111/jofi.13425> (<https://dx.doi.org/10.2139/ssrn.3737772>)

Kovner, Anna, and Josh Lerner. "Doing Well by Doing Good? Community Development Venture Capital." *Journal of Economics & Management Strategy* 24 (2015): 643-663. <https://doi.org/10.1111/jems.12100>

(<https://dx.doi.org/10.2139/ssrn.2150365>)

Landier, Augustin, and Stefano Lovo. "Socially Responsible Finance: How to Optimize Impact." *The Review of Financial Studies* 38 (2025): 1211-1258. <https://doi.org/10.1093/rfs/hhae055>

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Lerner, Josh, Markus Lithell, and Gordon M. Phillips. "Impact Investing and Worker Outcomes." *NBER Working Paper No. 33611* (2025). <https://doi.org/10.3386/w33611>

(<https://dx.doi.org/10.2139/ssrn.5178368>)

Oehmke, Martin, and Marcus M. Opp. "A Theory of Socially Responsible Investment." *The Review of Economic Studies* 92 (2025): 1193-1225. <https://doi.org/10.1093/restud/rdae048>

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## **ELECTIVE 3: Transition Finance and Transition Plans**

**Monday, April 13, from 9:00 to 10:00 EST.**

*Professor Ben Caldecott, University of Oxford*

Transition Plan Taskforce. "The Transition Plan Taskforce Disclosure Framework". London: Transition Plan Taskforce, October 2023.

<https://www.ifrs.org/content/dam/ifrs/knowledge-hub/resources/tpt/disclosure-framework-oct-2023.pdf>

Transition Finance Council. "Transition Finance Guidelines". London: City of London Corporation, August 2025.

<https://www.theglobalcity.uk/PositiveWebsite/media/Research-reports/Transition-Finance-Guidelines.pdf>

Caldecott, Ben. "Defining Transition Finance and Embedding It in the Post-Covid-19 Recovery." *Journal of Sustainable Finance & Investment* 12, no. 3 (2022): 934-938.

<https://doi.org/10.1080/20430795.2020.1813478>

Caldecott, Ben, Alex Clark, Elizabeth Harnett, and Felicia Liu. "How Sustainable Finance Creates Impact: Transmission Mechanisms to the Real Economy." *Review of World Economics* (2024).

<https://link.springer.com/article/10.1007/s10290-024-00541-9>

Rose, Adrien, Gireesh Shrimali, and Krista Halttunen. "A Framework for Assessing and Managing Dependencies in Corporate Transition Plans." *iScience* 28 (2025).

[https://www.cell.com/iscience/fulltext/S2589-0042\(25\)01072-7](https://www.cell.com/iscience/fulltext/S2589-0042(25)01072-7)

Nicolajsen, Astrid B., Anders Bjørn, Tim C. McAloone, and Daniela CA Pigosso. "Decoding corporate climate transition plans: A comparative analysis of 14 frameworks." *Journal of Environmental Management* 393 (2025): 127062.

<https://doi.org/10.1016/j.jenvman.2025.127062>

## **ELECTIVES 4 AND 5: COMMUNITY SESSIONS.**

We are planning two additional Community Sessions where participants and schools can briefly present their work. We are looking for a few faculty coordinators to host these sessions, and then for participants/coordinators to sign up to present. More information will be available later in the term.