Andreas Brøgger

Rotterdam School of Management, Erasmus University Burgemeester Oudlaan 50 3062 PA Rotterdam andreasbrogger.com brogger@rsm.nl +31 639 353 336

Academic Appointments

| Assistant Professor of Finance, Rotterdam School of Management, Erasmus University | 2023 - |
|--|----------|
| Research Fellow, Netspar | 2024 - |
| Associate Research Member, ERIM, Erasmus University | 2023 - |
| Guest Researcher, Copenhagen Business School 202 | 3 - 2024 |
| Visiting Scholar, University of Luxembourg 202 | 1 - 2022 |
| Visiting Scholar, The Wharton School, University of Pennsylvania 2013 | 9 - 2020 |

Education

| Ph.D. in Finance, Copenhagen Business School | 2017 - 2023 |
|---|-------------|
| Advanced Diploma in Economics, University of Cambridge | 2013 - 2014 |
| M.Phys. B.Sc. (1st class Honours) in Physics, University of Warwick | 2009 - 2013 |

Research Interests

Asset Pricing, Asset Management, Sustainable Finance

Research Papers

6. Skills and Sentiment in Sustainable Investing (with Alexander Kronies).

Best Paper in Finance Award, Second BFGA Conference.

Presented at the fourth University of Oklahoma Energy and Climate Finance Research Conference co-sponsored by the Review of Financial Studies.

Abstract: We document a significant difference in the returns to sustainable investing across investor types. Investors with strict ESG mandates earn 3.1% less than flexible investors. The mechanism is that flexible investors are able to react on expected ESG improvements. Without engaging in activism, flexible investors buy stocks that subsequently experience ESG score increases. After ESG improvements have realized, demand from strict mandate investors pushes up stock prices, resulting in positive returns for flexible investors. A new climate sentiment measure shows that the performance gap is higher when accompanied by rising sentiment, as seen during the 2010s. Our channel accounts for 51% of the return difference between strict and flexible ESG investment mandates. Hence, going from backward to forward-looking ESG ratings could reduce both capital misallocation and wealth transfer from strict investors, such as pension funds, to more flexible investors, such as hedge funds.

5. The Future of Emissions (with Jules van Binsbergen).

Presented at the AFA, EFA, and SFS Cavalcade (Scheduled).

Abstract: We argue for the introduction of firm-level emission futures contracts as a novel way of assessing the real impact of ESG initiatives. Our measure is based on the forward-looking market-based valuation of firm-level CO2 emissions. We establish both theoretically and empirically that backward-looking subjective ratings are limited to the extent that they fail to capture future re-

ductions in emissions. We show evidence that although lower emissions have predicted higher E ratings, higher E ratings have predicted higher, not lower, emissions. As such, by following these subjective ratings, investors may have inadvertently allocated their money to firms that pollute more, not less. We discuss several applications of our new measure, including executive pay and investment management.

4. Corporate Asset Pricing (sole author).

Abstract: I show the new fact that idiosyncratic volatility significantly predicts the convenience yield. This fact is hard to reconcile with current theories. I develop a new theory that reconciles this puzzle - a theory I label Corporate Asset Pricing (CAP). CAP is verified in the cross-section of firm holdings and has been an important driver at least since the 1920's. I provide causal interpretability by isolating my demand-based effect from confounders by using plausably exogenous cross-sectional variation in corporation size and industry exposures. The results provide support for the importance of corporates as an investor class.

3. Macroprudential Buffers: Trading Systemic Risk for Risk Premia (sole author).

Abstract: I document that equity prices fall as macroprudential buffers are announced. This is consistent with macroprudential buffers leading to an increase in risk premia, from a heightened price of risk. Theoretically, I develop a model that predicts that as buffers are announced 1) The price of risk increases, 2) Systemic risk falls, and 3) Intermediaries' risky asset allocation decreases, as other agents with higher risk aversion increase their portfolio weights in the risky asset. Empirically, I find evidence consistent with the first and third prediction. The second remains a testable implication of my model. In summary, this paper sheds light on the equilibrium effects of implementing new financial regulation on asset prices and systemic risk.

2. Identification and assessment of systemic risks in financial networks: Modelling fire sales from regulatory cliff effects (with Graeme Cokayne), Danmarks Nationalbank Working Paper, Number 117.

Abstract: This paper investigates fire sales triggered by regulatory cliff effects induced by the loss of Capital Requirements Regulation (CRR) compliance on covered bonds. The loss of CRR compliant status leads to banks holding these covered bonds to lose several regulatory advantages, one consequence being a lower solvency. In our analysis, following the loss of CRR compliance, banks sell off their covered bonds in a fire sale, in an attempt to return to their initial solvency, resulting in losses of equity for the system as a whole. Further, we find that, for price impacts larger than a critical threshold, even small shocks lead to explosive fire sales and large losses of equity. While these losses can be averted if the banks allow their solvency levels to fall temporarily, other regulations, such as those relating to large exposures to other banks, could still trigger similar fire sales.

Research in Progress

1. The Market for Green Funds (with François Koulischer and Michael Halling).

Abstract: We derive a model that predicts the rise of green investment funds. The model further explains how green funds have higher value-added, even though their alphas are lower than brown funds after controlling for rising sentiment. We go on to document the growth of green funds from 12% of managed equities in 2013 to 56% by 2021, where we circumvent issues of greenwashing by using the actual emissions of underlying holdings. Dissecting this growth, we find stark differences between North America and Europe, both in terms of magnitude and source of growth. The results provide support for a lower expected return for green funds going forward, and raises concerns

regarding the investor share of value-added in green funds.

Co-Founder and Co-Organizer

| Dutch Financial Economics of Climate and Sustainability (FECS) Workshop | 2024- |
|---|-------|
| Dutch Sustainable Finance Network (DSFN) | 2023- |

Media Attention

| Blog Post on Future of Emissions, Wharton Climate Center | 2024 |
|--|------|
| News Article on Future of Emissions, Jyllandsposten and Finans (In Danish) | 2023 |
| Podcast on Future of Emissions, Rig på Viden, Episode 79 | 2022 |
| Podcast on Skills and Sentiment in Sustainable Finance, Rig på Viden, Episode 13 | 2020 |
| Blog Post on Skills and Sentiment in Sustainable Finance, CAIA Association | 2020 |
| Central Bank Publication on Cliff Effects, Danmarks Nationalbank | 2016 |
| News Article on Cliff Effects, Danmarks Radio | 2016 |
| News Article on Cliff Effects, FinansWatch | 2016 |
| News Article on Cliff Effects, Finans | 2016 |

Honors, Awards, and Grants

| € 25 000 Netspar Topicality Grant | 2024 |
|---|------|
| Research Fellow, Netspar | 2024 |
| Associate Research Fellow, ERIM | 2023 |
| Guest Researcher, Copenhagen Business School | 2023 |
| Prize Finalist, Brandes Center | 2023 |
| Best Paper Award, Behavioral Research in Finance, Governance, and Accounting Conference | 2020 |
| Travel Grant, Princeton Initiative: Macro, Money and Finance | 2019 |
| Research Fellow, Center of Financial Frictions (FRIC) | 2017 |
| PhD Scholarship Grant, grant no. DNRF102 | 2017 |
| Warwick Renmin University Scholarship | 2011 |
| CEDIES Scholarship | 2009 |

Invited Seminars and Conferences

- 2025 The University of St Andrews Business School*, Netspar After-lunch Webinar*, Netspar Anniversary Congress Pension & Science (Attended by Queen Máxima of the Netherlands)*, SFS Cavalcade
- 2024 American Finance Association Annual Meeting (AFA), Utrecht University, Dutch Sustainable Finance Workshop, International Centre for Pension Management (ICPM) Discussion Forum, European Finance Association Annual Meeting (EFA), Erasmus University, Vrije Universiteit Amsterdam, Cambridge University Judge Business School, Robeco Investment Engineers
- 2023 BlackRock*, Rotterdam School of Management at Erasmus University, Universidad Carlos III de Madrid, ESCP, IESE, Tilburg University, Stockholm School of Economics, Stockholm Business School, HEC Paris, FED Board
- 2022 American Finance Association Annual Meeting (AFA) PhD Poster Session, American Eco-

^{*} indicates select presentations by co-author. Includes scheduled.

nomic Association Annual Meeting (AEA) PhD Poster Session, Review of Financial Studies (RFS) and University of Oklahoma Energy and Climate Finance Research Conference*, Chartered Financial Analyst Society Denmark (CFA), Copenhagen Business School FRIC Final Event, HEC Paris 6th Finance PhD Workshop, BI Norwegian Business School and Nordic Finance Network (NFN) Young Scholars Workshop, Università di Bologna 1st YSBC Sustainable Finance Conference

- 2021 University of Luxembourg, EEA-ESEM 36th Congress of the European Economic Association, Econometric Society Asian Meeting, Aarhus University Nordic Finance Network (NFN) PhD Workshop, Copenhagen Business School
- 2020 Wharton School at University of Pennsylvania, Chicago Becker Friedman Institute Macro-Finance Research Program Summer Session for Young Scholars (MFR), 19th Conference on Credit Risk Evaluation (CREDIT), Northern Finance Association Meetings (NFA) PhD Symposium*, Behavioral Research in Finance, Governance and Accounting Conference*, T. Rowe Price Investment Management
- 2019 American Finance Association Annual Meeting (AFA) PhD Poster Session, Aalto University and Nordic Finance Network (NFN) PhD Nordic Finance Workshop, Wharton School at University of Pennsylvania
- 2018 Danmarks Nationalbank, Nykredit Realkredit A/S, Lund University*, Copenhagen Business School PhD Day, Bank of England Fire Sale Workshop*, Bank of Finland RiskLab*, Financial Management Association (FMA) Europe

Invited Discussions and Session Chair

- **2022** Bonelli, Briere, and Derrien: Altruism or self-interest? ESG and participation in Employee Share Plans, 1st YSBC Sustainable Finance Conference (Discussion)
- 2021 Econometric Society, Asian Meeting (Session Chair)
- **2018** FMA Europe. Vodenska, Aoyama, Becker, et al. Systemic Risk and Vulnerabilities of Bank Networks (Discussion)

Organized Workshops and Conferences

| Co-organizer Dutch Sustainable Finance Workshop | 2025 |
|--|------|
| Co-organizer Dutch Sustainable Finance Workshop | 2024 |
| Paper selection committee 6th Annual GRASFI Conference at Yale University | 2023 |
| Paper selection committee 2nd Conference on Sustainable Finance at Luxembourg University | 2022 |

Teaching

| Sustainable Finance, Rotterdam School of Management | | | |
|---|--|--|--|
| Lecturer and course coordinator, Master level (100+ students) | | | |

Financial Modelling, Rotterdam School of Management 2023-2024 Lecturer and course coordinator, Master level core course (500+ students)

| Course in Financia | l Economics of | f Climate and | ${\bf Sustainability,}$ | Global | 2023-2024 |
|--------------------|----------------|---------------|-------------------------|--------|-----------|
| | | | | | |

Local course coordinator at Rotterdam School of Management, PhD Level

Financial Intermediation, Copenhagen Business School 2018-2021

Lectured tutorials and assisted David Lando, Master Level

Financial Derivatives and their Applications, Copenhagen Business School 2017-2019

Teaching assistant to Rasmus Tangsgaard Varneskov, Bachelor Level

Corporate Finance, Copenhagen Business School

2018-2019

Teaching assistant to Thomas Geelen, Masters Level

Referee

Journal of Banking and Finance; Journal of Environment, Development and Sustainability; Journal of Commodity Markets

Service

| PhD Reading Group Sustainable Finance, RSM | 2024 |
|--|-----------------|
| Examiner Sustainable Finance, Copenhagen Business School | 2023 |
| Supervisor Masters' Theses | 2019-2025 |
| Supervisor Bachelors' Theses | 2018-2023 |
| Supervisor Business Projects and Internships | 2021, 2024-2025 |
| PhD Brown Bag Coordinator | 2017-2019 |

Industry Experience

| National Bank of Denmark | |
|--|-------------|
| Systemic Risk and Financial Stability, Head of Section | 2015-2017 |
| Banking and Markets Trainee | 2014 - 2015 |
| Sparinvest, Copenhagen (DK), Investment Fund, Risk and Compliance Intern | 2014 |
| Eden McCallum, London (UK), Strategy Consulting Intern | 2014 |

Other

| <i>T</i> | 1 1 /T31 / | | O 1: 1 | N T . | $\langle D \cdot \rangle D \cdot$ | 1 /NT / · \ |
|---------------|---------------|--------------|--------------|--------------|-----------------------------------|-------------|
| Languages Eng | glish (Fluent |). French Ge | rman Swedish | Norwegian | (Basic), Danis | sh (Native) |

Citizenship Danish, Luxembourgish

Miscellaneous Runner up in Copenhagen Business School Department of Finance Fantasy Football

League (2021), Sofar Copenhagen Organizer (2016), UK 2nd Division Winner as

Warwick University Handball Team (2010)

References

Jules van Binsbergen

Nikkon Life Professor in Finance
Wharton School of Business
University of Pennsylvania
3620 Locust Walk
PA 19104, Philadelphia
United States
julesv@wharton.upenn.edu
sites.google.com/view/jules-van-binsbergen

David Lando

Professor of Finance, Center Leader of FRIC
Copenhagen Business School
Solbjerg Plads 3
DK-2000 Frederiksberg
Denmark
dl.fi@cbs.dk
sites.google.com/view/david-lando/

Jens Dick-Nielsen

Professor of Finance
Center for Financial Frictions (FRIC)
Copenhagen Business School
Solbjerg Plads 3
DK-2000 Frederiksberg
Denmark
jdn.fi@cbs.dk
sites.google.com/view/jens-dick-nielsen/

Roberto Steri

Assistant Professor of Finance
Université du Luxembourg
6, rue Richard Coudenhove-Kalergi
L-1359 Luxembourg
Luxembourg
roberto.steri@uni.lu
sites.google.com/site/robertosteripersonalpage/