PHILIPPE VAN DER BECK

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EPFL & Swiss Finance Institute
College of Management of Technology (CDM)
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Graduate Studies

Swiss Finance Institute at EPFL *2018 - Present (Expected May 2023)*
- Ph.D. in Finance
- Advisor: Prof. Pierre Collin-Dufresne

Princeton University *2022*
- Visiting Student Research Collaborator
- Host: Prof. Motohiro Yogo

Imperial College Business School *2017-2018*
- M.S. in Finance
- Top of the class 2018

Undergraduate Studies

Ludwig Maximilians University *2014-2017*
- B.S. in Economics
- Top of the class 2017

References

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Research Fields

Primary Field: Finance, Empirical Asset Pricing
Secondary Fields: Structural Estimation, Sustainable Finance, Industrial Organization

Job Market Paper

"Flow-Driven ESG Returns" (Solo-authored)
The returns from sustainable investing are strongly driven by price pressure from flows towards sustainable funds, causing high realized returns that do not reflect high expected returns. Using a structural model, I estimate investors' ability to accommodate the demand from sustainable funds, which is given by their elasticity of substitution between stocks. I show that every dollar flowing from the market portfolio into sustainable mutual funds increases the aggregate value of green stocks by \$0.4. The price pressure from flows supports the effectiveness of impact investing by lowering green firms' cost of capital. In the absence of flow-driven price pressure, sustainable funds would have underperformed the market from 2016 to 2021. To this end, I develop a new measure of total capital flows into managed portfolios. The price pressure from total ESG flows is highly correlated with empirically observed returns, both in the time-series and in the cross-section. I support the structural estimates with reduced-form evidence, showing that index inclusions and mandate-driven portfolio additions by sustainable mutual funds significantly boost the prices of green stocks.

The paper will be presented at the AFA 2023 Session on "Sustainable Finance and Asset Prices".

Research Papers

"On the Estimation of Demand-Based Asset Pricing Models" (Solo-authored)
A growing literature uses portfolio holdings data to quantify the impact of investor demand on equilibrium prices via counterfactual experiments. The key parameter in relating demand and equilibrium prices is investors' elasticity of demand with respect to the price. Unlike previous studies, which rely on cross-sectional estimates in levels, this paper proposes estimating elasticities from investors' trades, that is changes in their portfolios. I use demand shocks from mutual fund flows as an instrument to address the endogeneity of trades and prices. Using the estimation in changes along with the flow-based instrument I find that elasticities are 4 times larger than what previous estimates suggest. Estimation over different trading horizons furthermore shows that investors become more elastic in the long run. The results suggest that the impact of demand shocks on equilibrium prices is smaller than previously estimated and partly reverts over time.

"The Equity Market Implications of the Retail Investment Boom" (with Coralie Jaunin)
We quantify the impact of Robinhood traders on the cross-section of US stock returns. We estimate retail and institutional demand curves and derive aggregate pricing implications via market clearing. Despite their negligible market share of 0.2%, Robinhood traders account for 10% of the cross-sectional variation in stock returns during the second quarter of 2020. Furthermore, without the surge in retail trading activity the aggregate market capitalization of the smallest size quintile of stocks would have been 25% lower. At a higher frequency, Robinhood traders tend to be contrarian. Apart from a few idiosyncratic herding events (such as GameStop, Hertz or AMC) they lower volatility for the majority

of stocks by providing immediacy to institutions.

"The Equilibrium Flow-Return Relation" (with Semyon Malamud and Andreas Schrimpf)
Financial asset returns and flows generally exhibit a high contemporaneous correlation. How can we identify whether returns are driven by flows (the inelastic markets hypothesis), or flows simply respond to contemporaneous returns due to investors' performance chasing. To answer this question, we develop a simple equilibrium model with performance-sensitive, persistent flows and funds managed against benchmarks. The model implies an explicit relationship between benchmark returns and flows, allowing us to identify the "true" flow-performance sensitivity using a linear regression. This identification leads to an explicit bias-correction formula, allowing us to directly estimate (1) price elasticity to flows; (2) pure (non-performance driven) flow shocks; and (3) expectations of market participants about future flows and their impact on benchmark prices. We find that our model does a good job in explaining the behaviour of these quantities across different benchmarks.

"Portfolio Holdings and the Origins of Demand Elasticities" (with Lorenzo Bretscher)
We study the use of portfolio holdings data across different asset classes more broadly. We document a set of stylized facts and show that the inference of structural parameters (such as demand elasticities) critically depends on the asset class-specific definitions of demand, supply and price and their joint distribution.

Awards and Honours

Best Paper Award 2022 SFI Research Days	*2022*
Best Paper Award 2021 SFI Research Days	*2021*
Best Discussant Award 2020 SFI Research Days	*2020*
Imperial College Award for Highest GPA in MSc Finance	*2019*
Best Research Project Prize Imperial College	*2019*
Nigel Meade Quantitative Finance Prize	*2019*
Unigestion Investment Prize	*2019*
LMU Alumni Award for Highest GPA in BSc Economics	*2017*

Grants and Scholarships

Participation in SNSF Grant obtained by Pierre Collin-Dufresne *2020-2023*
- Project: Demand-based Asset Pricing and ESG Preferences
- Amount: 475,490CHF

Swiss Finance Institute *2018 - 2023*
- PhD Student Scholarship

Imperial College Brilliant Minds Scholarship *2017-2018*
- Amount: 20,000 GBP

Max Weber Program Bavaria *2015 - 2018*
- Undergraduate Elite Student Scholarship

Professional Activities

Capital Fund Management (CFM, Paris) *2021-2023*
- Academic Consultant for Demand-Based Asset Pricing

Max Planck Institute for Innovation and Competition (MPI, Munich) *2015-2017*
- Research Assistant

Ifo Center for Labor and Demographic Economics (CESifo, Munich) *2016-2017*
- Research Assistant

Refereeing

Financial Analysts Journal (FAJ)
Journal of International Financial Markets, Institutions & Money
Economic Modelling

Selected Presentations

American Finance Association Meeting (expected) *2023*
Northern Finance Association Meeting, Princeton PhD Workshop, *2022*
World Finance Conference Turin, Dauphine Finance PhD Workshop,
HEC Lausanne PhD Workshop, SFI Research Days

14th Financial Risk International Forum, Society of Quantitative Analysts (SQA), *2021*
SFI Research Days, Unil Brownbag Seminar, Wharton PhD Workshop
(co-author presentation), CFM Research Seminar (x2),
Vrije University Amsterdam Finance Seminar, SFI Research Days

SFI Research Days *2020*

Teaching

Investments, MSc Financial Engineering, EPFL *2023*
Real Options and Financial Structuring, MSc Financial Engineering, EPFL *2019-2022*
Risk Management Using Factor Models, SFI Executive Master Class *2021-2022*
Data-Driven Business Analytics, Humanities and Social Sciences Program, EPFL *2021-2022*
Advanced Microeconomics, B.S. Economics, LMU *2016-2017*

Skills & Interests

Software: Python, Stata, Matlab, LaTeX
Statistics & Machine Learning: Causal Inference, Structural Estimation, Deep Learning
Interests: Tennis, Track & Field, CrossFit, Golf

Updated November 2022