

SIMONA ABIS

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Columbia Business School
3022 Broadway, 420 Uris Hall, New York, NY 10027

ACADEMIC POSITIONS

Since July 2017 Assistant Professor, Finance division of Columbia Business School (CBS), New York

Since May 2018 Affiliated member, Financial and Business Analytics Center, Data Science Institute, Columbia

Since Nov 2018 Co-Director, Innovation in Finance Initiative of the Program for Financial Studies, CBS

EDUCATION

2011–2017 INSEAD, Singapore/Fontainebleau · *PhD in Finance*

2008–2009 Cass Business School, London · *MSc in Quantitative Finance*

2005–2008 Bocconi University, Milan · *BSc in Economics of International Markets and New Technologies*

2007–2008 Fundação Getulio Vargas, São Paulo · *IPM Introductory Master in Management*

RESEARCH INTERESTS

Empirical & Theoretical Asset Pricing, Information Economics, Machine learning, Asset Management

RESEARCH

WORKING PAPERS

“The Changing Economics of Knowledge Production” with Laura Veldkamp

Big data technologies change the way in which data and human labor combine to create knowledge. Is this a modest technological advance or a transformation of our basic economic processes? Using hiring and wage data from the financial sector, we estimate firms’ data stocks and the shape of their knowledge production functions. Knowing how much production functions have changed informs us about the likely long-run changes in output, in factor shares, and in the distribution of income, due to the new, big data technologies. Using data from the investment management industry, our results suggest that the labor share of income in knowledge work may fall from 44% to 27% and we quantify the corresponding increase in the value of data.

“Text-Based Mutual Fund Peer Groups” with Anton Lines

Despite the large literature on mutual fund benchmarking, little is known about how funds themselves describe their strategies and risk exposures, and whether differences in these descriptions are meaningful. We use unsupervised machine learning to categorize the universe of US active equity mutual funds into strategy and risk peer groups based on the language in their prospectuses. We find rich variety in funds’ self-described strategies and risk exposures that cannot be accounted for by differences in risk-adjusted returns. However, we show that textual differences are associated with significant differences

in risk factor exposures and sensitivity to macroeconomic variables, providing a rationale for the proliferation of strategies in the industry: funds in different peer groups offer meaningfully different return profiles, which may appeal to different investor clienteles.

“Man vs. Machine: Quantitative and Discretionary Equity Management”

I use a machine learning technique to classify the universe of active equity mutual funds into “quantitative funds” and “discretionary funds”. I propose an equilibrium model in which quantitative funds have greater information processing capacity but less adaptive strategies. The model predicts that quantitative funds hold more stocks and display pro-cyclical performance, but their trades are vulnerable to “overcrowding”. Discretionary funds alternate between stock picking in expansions and market timing in recessions, display counter-cyclical performance and focus on stocks for which less overall information is available. My empirical evidence supports these predictions.

“Market Timing in Bayesian Portfolio Optimization”

I propose a portfolio allocation model that combines a data-based approach with macroeconomic considerations of the business cycle. It accounts for the two key features of business cycles, namely co-movement among macroeconomic variables and asymmetric development of the cycles. The joint treatment of these characteristics improves the ability of the model to time market turns, consequently enhancing portfolio gains. The estimation technique developed allows to simultaneously address the issues of parameter uncertainty, mispricing uncertainty and the uncertainty relative to structural instability within a Bayesian portfolio optimization problem.

WORK IN PROGRESS

“Learning from Soft Information: Capital Allocation in the Mutual Fund Industry” with Anton Lines

“The Impact of Mutual Fund Regulation on Allocative Efficiency” with Anton Lines

FELLOWSHIPS, AWARDS AND HONORS

- 2018: *Selected* to be featured in the INSEAD “50 years to women, 50 big ideas” campaign
- 2017: *Recipient*, AQR Top Finance Graduate Award at CBS
- 2013–2014: *Recipient*, Outstanding tutor award, INSEAD
- 2011–2016: *Recipient*, Full scholarship, INSEAD PhD scholarship
- 2008: *Selected* representative of Bocconi University in MMICC international case competition, McGill University, Montreal

PRESENTATIONS

CONFERENCES

- 2020: 2nd Future of Financial Information Conference, Stockholm Business School · NBER Summer Institute Economic Growth
- 2019: Machine Learning in Finance Workshop, Data Science Institute · 4th Data Science Day, Columbia University · WAPFIN Conference at NYU Stern · Rising Five Star Conference, Columbia University

- 2018: Second Maryland Finance Conference · FIRS The Financial Intermediation Research Society · NBER Summer Institute Big Data and High-Performance Computing for Financial Economics · Speed Conference Cornell Tech
- 2017: AQR Institute: Academic Symposium at LBS · WAPFIN Conference at NYU Stern · Banco BPI Conference at Nova School of Business and Economics
- 2016: LabEx ReFi PhD Workshop · 2nd HEC Finance PhD Workshop · Wharton–INSEAD PhD Consortium

SEMINARS

- 2020: Toulouse School of Economics (scheduled)
- 2018: Stanford GSB · Boston College · Bocconi University · London Business School
- 2017: Imperial · HKUST · LSE · Columbia GSB · Washington U. in St. Louis Olin · U. of Virginia Darden · Georgetown McDonough · UT Austin McCombs · Rice Jones · U. of Chicago Booth · UCLA Anderson · University of Illinois · Harvard Business School
- 2015-2016: INSEAD Brownbag

DISCUSSIONS

- Western Finance Association (WFA): “Machine Learning, Human Experts, and the Valuation of Real Assets”, Aubry, Kraussl, Manso, and Spaenjers (2020)
- Swedish House of Finance (SHoF) conference on Financial Markets and Corporate Decisions: “Risk Factors that Matter: Textual Analysis of Risk Disclosures for the Cross-Section of Returns”, Lopez-Lira (2019)
- LBS Summer Finance Symposium 2019: “The allocation of talent across mutual fund strategies”, Buffa, Javadekar (2019)
- Georgia State FinTech Conference 2019: “Thousands of Alpha Tests” Giglio, Liao, Xiu (2018)
- FIRS 2018: “Robo-advisers and Investor Behavior” Loos, Previtero, Scheurle, Hackethal (2018)
- 5 Star Conference 2017: “Long Run Growth of Financial Data Technology” Farboodi and Veldkamp (2017)
- EFA 2017: “Hidden in Plain Sight: Equity Price Discovery with Informed Private Debt” Addoum and Murfin (2016)

PROFESSIONAL SERVICE

REFEREE

- Review of Financial Studies · Journal of Finance · Journal of Banking and Finance · Journal of Economic Theory · Review of Finance · Management Science · Journal of Financial and Quantitative Analysis

PROGRAM COMMITTEE

- EFA (2018, 2019), Georgia State FinTech Conference (2019, 2020), MFA (2020)

CONFERENCE ORGANIZER

- New Technologies in Finance Conference - NTIF (2019)
- Fourteenth Annual Early Career Women in Finance Mini-Conference - ECWFC (2019)

TEACHING

COURSES TAUGHT AT COLUMBIA BUSINESS SCHOOL

- Capital Markets and Investments (MBA full course, 2018, 2019, 2020)
- Big Data (Phd course · 2 classes, 2019, 2020)
- Pre-Thesis Seminar on Technology in Finance (Phd course · 2 classes, 2018)

TUTORIAL INSTRUCTOR INSEAD

- Prices & Markets (MBA Core Microeconomics, 2012, 2014, 2016)
- Financial Markets and Valuation (MBA Core Finance, 2013)

OUTSIDE ACTIVITIES 2015-2020

Columbia Business School requires faculty members to disclose any activities that might present a real or apparent conflict of interest. The list below complies with this requirement.

Speaking engagements

- 2020 Presented to selected members of Vanguard's Executive Team
- 2018 Presented at: Vanguard Speakers Series on Data Science · Q Group Conference · Wolfe Research QES Conference
- 2017 Presented at the CFA Society France: Active vs. Passive management

Consulting/Collaborations with asset managers

- 2014-2015 Tyler Capital, Singapore
Proprietary Trading Firm · Quantitative Researcher

OTHER PROFESSIONAL ACTIVITIES

- 2013 Advised all core projects and participated in the panel evaluation of the Executive UNICEF Leadership Development Program, INSEAD
- 2009-2011 Whadwani Asset Management/Caxton Associates, London
Systematic Managed Futures Hedge Fund · Full-Time Quantitative Researcher
- 2008 Hill and Knowlton, Milan
Crisis and Financial Communication · Summer Intern