

## SIMONA ABIS

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

## ACADEMIC POSITIONS

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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

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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

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Asset Pricing, Information Economics, Asset Management, Machine Learning, Artificial Intelligence, Privacy Regulation

## RESEARCH

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### WORKING PAPERS

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

**R&R Journal of Finance**

I use machine learning to categorize US active equity mutual funds as quantitative (reliant on computer models and fixed-rules) or discretionary (reliant on human judgment). I then formulate hypotheses of how their holdings and performance might differ, based on the conjecture that quantitative funds might have more learning capacity but less flexibility to adapt to changing market conditions than discretionary funds. Consistent with those hypotheses, I find that quantitative funds hold more stocks, specialize in stock picking, and engage in more overcrowded trades. Discretionary funds hold lesser-known stocks, switch between picking and timing and outperform quantitative funds in recessions.

“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 data revolution? Using hiring and wage data, we show how to 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 structural estimates predict that the labor share of income in knowledge work may fall by 5%. The change associated with big data technologies is similar in magnitude to estimates of the change brought on by the industrial revolution.

“Do Mutual Funds Keep Their Promises?” with Anton Lines

(This paper was previously circulated under the title: “Text-Based Mutual Fund Peer Groups?”)

Mutual fund prospectuses contain a wealth of qualitative information about fund strategies, yet a systematic analysis of this content is missing from the literature. We use machine learning to group together funds with similar strategy descriptions, and ask whether they act in accordance with the text. Despite weak legal recourse for investors, we find that mutual funds largely do keep their promises. We document a market-based disciplinary mechanism: when funds diverge from their group’s core strategy, investors withdraw capital. Funds respond to these punitive outflows by reducing their divergence from the peer group average at a faster rate.

“Learning from Prospectuses” with Andrea Buffa, Apoorva Javadekar and Anton Lines

We study qualitative information disclosure by mutual funds when investors learn from these disclosures in addition to past performance. We show theoretically that fund managers with specialized strategies optimally choose to disclose detailed strategy descriptions, while managers with standardized strategies provide generic descriptions. Generic descriptions lead to errors in benchmarking by investors and thus higher volatility in capital flows. While all fund managers dislike such volatility, those with above-average factor exposures also benefit from benchmarking errors as investors incorrectly ascribe factor returns to managerial skill. The model generates a number of predictions that we are able to test empirically using a comprehensive dataset of fund prospectuses. Consistent with the model’s predictions, funds with standardized strategies include more boilerplate in their descriptions, grow larger and have lower flow-performance sensitivity, despite having greater flow volatility.

“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

“Privacy or AI, that is the question!” with Roxana Mihet, Huan Tang

We study how the tension between AI development and privacy protection affects firms’ AI-investment choices, their risks, and their valuation. We focus on the CCPA, a regional privacy-protection law passed in 2018 by the state of California. And study how its approval affected firms’ choices and their competitive advantages.

## FELLOWSHIPS, AWARDS AND HONORS

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- 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

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### CONFERENCES

- 2022: American Finance Association (AFA) (scheduled), Econometric Society North American Winter Meetings (scheduled), Machine Learning and AI in Finance conference – Stockholm School of Economics and the Swedish House of Finance (scheduled)
- 2021: American Finance Association (AFA), European Financial Association (EFA) – keynote commentary, International Risk Management Conference (IRMC)
- 2020: 2nd Future of Financial Information Conference, Stockholm Business School · NBER Summer Institute Economic Growth · UNC Junior Roundtable · Early Career Women in Finance Conference ECWFC
- 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 · 2<sup>nd</sup> HEC Finance PhD Workshop · Wharton–INSEAD PhD Consortium

### SEMINARS

- 2022: New York University (scheduled) · Frankfurt University (scheduled)
- 2021: HEC · IDC-Arison · Carnegie Mellon · National University of Singapore · Bristol University · Washington University (Foster) · Johns Hopking University · CEPR Women in Economics WE\_ARE seminar series
- 2020: Toulouse School of Economics · City University of Hong Kong · Swiss Finance Institute Lugano · Minnesota 3M Reading Group
- 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

- NBER Big Data and Securities Markets, Fall 2021: “Financial Reporting and Consumer Behavior” Noh, So and Zhu
- European Finance Association (EFA) 2021: “Benchmarking Intensity” Pavlova and Sikorskaya
- European Finance Association (EFA) 2021: “Market Efficiency in the Age of Machine Learning” Barbopoulos, Dai, Putnins and Saunders
- Future of Financial Information (FutFinInfo) 2021: “Do Mutual Funds Walk the Talk? A Textual Analysis of Risk Disclosure by Mutual Funds ” Jinfei Sheng, Nan Xu, and Lu Zheng
- European Finance Association (EFA) 2020: “The Colour of Finance Words” Garcia, Hu, and Rohrer
- Western Finance Association (WFA) 2020: “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 2020: “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

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### REFEREE

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

### PROGRAM COMMITTEE

- EFA (2018, 2019, 2020), Georgia State FinTech Conference (2019, 2020), MFA, (2019), FMA Best Fin-tech Paper (2021)

### CONFERENCE ORGANIZER

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

## TEACHING

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### COURSES TAUGHT AT COLUMBIA BUSINESS SCHOOL

- Capital Markets and Investments (MBA full course, 2018, 2019, 2020, 2021)
- Big Data (Phd course · 2019, 2020, 2021)
- 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 2016-2021

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*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*

2020–2021	SQA Academic Advisory Board Member
2021	Presented at the CFA Society New York
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

## OTHER PROFESSIONAL ACTIVITIES

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2014-2015	Tyler Capital, Singapore <i>Proprietary Trading Firm · Quantitative Researcher</i>
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 <i>Systematic Managed Futures Hedge Fund · Full-Time Quantitative Researcher</i>
2008	Hill and Knowlton, Milan <i>Crisis and Financial Communication · Summer Intern</i>