Fiona Paine
painef@mit.edu

Letter of Recommendation Writer
Antoinette Schoar

EDUCATION

Ph.D. Candidate in Finance 2019 - present
Massachusetts Institute of Technology
Visiting Ph.D. Student Fall 2023
LSE Finance Department

B.S. in Mathematical Economics 2017
Massachusetts Institute of Technology
B.S. in Electrical Engineering 2017
Massachusetts Institute of Technology

GRADUATE COURSEWORK

Microeconomics I-IV, Macroeconomics I-IV, Statistical Methods in Economics, Econometrics, Non-Linear Econometric Analysis, Asset Pricing, Advanced Asset Pricing, Corporate Finance, Advanced Corporate Finance, Labor Economics II, Public Economics II, Current Topics in Finance, Advanced Topics in Industrial Organization

EMPLOYMENT

MIT Sloan School of Management
Research Assistant to Professor Antoinette Schoar 2020-2023
Research Assistant to Professor Maryam Farboodi 2021

Quantum Metric (Digital Analytics Startup) Summer 2022
Project management intern and conducted academic research

Federal Reserve Board: International Finance Division 2017-2019
Research Assistant in Global Capital Markets

TA POSITIONS

15.434 – Advanced Corporate Finance (MBA/MFin) (Fall 2021, 2022) for Egor Matveyev
15.417 – Laboratory in Investments (Undergrad) (Spring 2022, 2023, 2024) for Paul Mende
15.417 – Advanced Corporate Finance (PhD) (2023)
15.738 – Corporate Finance for Turbulence and Innovation (Executive MBA) (Winter 2023) for Christopher Palmer

CONFERENCES, SEMINARS, AND PRESENTATIONS

2023: Workshop on the Economics of Information Security (WEIS) Conference; Sloan Finance PhD Workshop
2022: Sloan Finance PhD Workshop

RESEARCH WORK IN PROGRESS

1. "Municipal Cyber Risk". (with Johnathan Jensen) 2023.
Summary: We use a data set of hand collected IT spending data merged with municipal bond data and municipal ransomware attacks. We find that following a ransomware attack, municipal IT spending increases and bond yields fall. Finally, we investigate potential channels.
2. "The Morality of Debt". (with David Thesmar and Antoinette Schoar) 2023.
3. "Big Data and Firm Risk". Masters Thesis. 2022.
Summary: I investigate the impact of firm data collection and analysis on the riskiness of firm cash flows. I use a scraped data set of the third party resources loaded on firms' websites as a measure of firm data collection and analysis practices.

FELLOWSHIPS AND AWARDS

Sloan Finance Department "Above and Beyond" award

ACADEMIC SERVICE

Sloan Finance PhD Workshop Organizer (Fall 2022 - Spring 2023)

PERSONAL

Citizenship: United States, Canada
Gender: Female

I am a 5th year PhD student in finance at MIT. My research focuses on venture capital and private equity, as well as the impact of technology on firms' corporate finance decisions (investment, funding, risk).

Attending the NEBR entrepreneurship bootcamp would be an incredible opportunity for me to network and learn. In particular, I look forward to getting exposure to a broader swath of entrepreneurship research beyond the VC and PE focus that I have familiarity with. I hope to learn from each speakers' unique perspective on entrepreneurship and find new potential directions for my research. I am also excited to meet and talk with others who are interested in similar topics.

I have several ongoing projects that relate to entrepreneurship.

First, is a project based on a novel measure of ex-ante startup innovation that I created. I scrape the webpages of startups at their earliest point as well as 3 years after founding. Since startups lack brand capital, they almost universally describe their product or service on the home page of their website. I use these descriptions to create a measure of how innovative/differentiated a startup is at founding as well as 3 years post founding. My measure is persistent and correlates with eventual patenting as well as IPOs. The project is still in an early stage, however, I hope to use the measure to study how the level of innovation of funded startups impacts VC's contribution to economic growth. Since this measure has a panel component, I can get snapshots of a startup's innovation at different points in time. Using this, I also hope to study startup innovation dynamics and pivoting decisions.

Secondly, I am working on a private equity project that is joint with Josh Lerner and Antoinette Schoar. We are studying how general partners update and report their forecasts about their ongoing portfolio company investments. In particular, we ask whether sentiment in a GP's report to an LP is predictive of future outcomes of those portfolio companies

In joint work with Maryam Farboodi and Neil Thompson I am studying how improvements in the computational efficiency of algorithms impacts firm outcomes. One potential direction for this project is looking at whether these technological changes create opportunities for startups to enter and disrupt incumbents.

My two final research projects are less related to entrepreneurship. In joint work with Johnathan Jensen I look at the impact of municipal ransomware events on municipal borrowing costs. Second, in my master's thesis I study how the use of web analytics impacts firm risk.

Antoinette Schoar
Stewart C. Myers-Horn Professor of Finance
Professor of Finance

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Letter of Recommendation for Fiona Paine

February, 2024

Dear Madam/Sir,

It is with great pleasure that I am writing a letter of recommendation for Fiona Paine as she applies for the NBER Entrepreneurship boot camp. I have known Fiona for the last four years, from the time she started as a PhD student in our finance program. For the last year, she has also been working with Josh Lerner and me on a project using data from GP annual reports to their limited partners.

Fiona has been interested in entrepreneurship, fintech and new technology adoption from the beginning of her PhD at Sloan. She is an unusual finance PhD student in that she is really interested in details of new technologies and their applications to corporate strategies and decisions. As an example, her third-year paper for our PhD program looks at how new website tracking tools that provide companies with better sales metrics and information about their companies affect their sales forecasts and volatility of sales. For that paper she worked with a tech startup as an intern to get access to this data and the related metrics. This is a creative idea that depended on understanding the technological details of an application. In the project with Josh and me we are using fund internal data and their annual reports to their investors to analyze how GPs learn about the quality of their portfolio firms and strategic aspects of communication between LPs and GPs. We brought Fiona into the project since she is “tooled up” in using machine learning to parse nonstandard data and free form text and apply natural language models. But she quickly became a full-fledged coauthor on the project.

In sum, Fiona is a bright and promising student, who is deeply interested in entrepreneurship and VCPE. I believe that she is on a very promising trajectory, and I expect her to do interesting research work going forward. I know that she will benefit tremendously from the boot camp. In

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fact, I wanted her to apply to the boot camp earlier but for personal reasons she had to spend the last summer in Europe and could not apply. She is also a very pleasant and constructive person who brings positive energy and enthusiasm to her work. I believe she will be an asset to the program. Therefore, I hope you will seriously consider his application.

Please feel free to contact me if you need further information.

Best regards,



Antoinette Schoar
Stewart C. Myers-Horn Family Professor of Finance