2018 NBER Entrepreneurship Boot Camp Application: Cover Letter

February 10, 2018

Applicant Contact Information

Name: Olivia S. Kim

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Phone: 703-303-8101

Affiliation: MIT Sloan School of Management

Program: Finance

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Name of the recommendation letter writer

Name: Antoinette Schoar

Contact: aschoar@mit.edu

Olivia Soohae Kim

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oskim@mit.edu
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EDUCATION

MIT Sloan School of Management, Cambridge, MA September 2016 - Present
Ph.D., Financial Economics (in progress) Full-time
Relevant Coursework: Microeconomics Theory, Contract Theory, Corporate Finance, Decision Theory, Dynamic Optimization, Econometrics, Economic Crisis, Financial Economics, and Statistics.

Smith College, Northampton, MA September 2007 - May 2011
Bachelor of Arts in Economics; Minor in Spanish Full-time
First Group Scholar 2010; Dean's List 2008-2009
Relevant Coursework: Macroeconomics, Microeconomics, Econometrics, Game Theory, International Finance, Money and Banking, Development Economics, Financial Accounting, Economic Policy

PROFESSIONAL EXPERIENCE

JP Morgan Chase Institute, Washington D.C. June 2017 - August 2017; January 2018
PhD Fellow on the Small Business Research Team Part-Time

- Assist in development of data assets and provide data analysis for the Institute reports. Conduct literature reviews and participate in weekly problem solving sessions on research efforts.

MIT Sloan School of Management, Cambridge, MA June 2017 - August 2017; January 2018
Research Assistant to professors Antoinette Schoar and Jonathan Parker Part-Time

- Provide data analysis for a research project examining the consumption behavior of entrepreneurial households using anonymized customer transactions data.

MIT Sloan School of Management, Cambridge, MA January 2017 - May 2017
Research Assistant to professor Jonathan Parker Part-Time

- Conduct literature review and manage inputs for academic papers and other documents for publication purposes. Edit manuscript and provide feedback. Write research proposals and review referee reports.

Massachusetts Institute of Technology, Cambridge, MA June 2014 - July 2016
Research Assistant to professors Josh Angrist, David Autor, and Amanda Pallais Full-Time
School Effectiveness Inequality Initiative, Department of Economics.

- Research: Provide data analysis for a randomized evaluation of the effect of need-based financial aid on post-secondary educational attainment. Assist with all stages of empirical analysis and interpret findings for both academic and policy audiences. Create presentations and edit manuscripts.
- Management: Collaborate with public colleges and universities in Nebraska to acquire and construct administrative data sets. Write memos for research partners and assist with conducting randomization.

Board of Governors of the Federal Reserve System, Washington D.C February 2011 - June 2014
Senior Research Assistant Full-Time
Global Capital Markets, Division of International Finance

- Research: Support section economists with research projects. Research projects include cross-country analysis of corporate cash holdings, analysis of corporate bond and loan issuance and pricing, mutual fund flows, foreign currency composition of bond and loan issuance.
- Policy: Manage and update international datasets on corporate bonds, syndicated loans, and flow of funds. Provide analysis relevant to policy questions. Policy projects include credit availability in emerging market economies, cross-country linkages in corporate profits, Eurosystem lending to banks.

Smith College Economics Department, Northampton, MA September - December 2010
Teaching Assistant (ECO 254: Intermediate Macroeconomics) Part-time
- Graded bi-weekly distributed problem sets.

UBS Financial Services, Vienna, VA September - December 2009
Wealth Management Intern Part-time
- Researched financial products and asset allocating options using a search engine, Morningstar.
- Analyzed and prepared client portfolio evaluations using funds diversification and performance reports.

RESEARCH SKILLS

Working Papers
- "Does Political Uncertainty Increase External Financing Costs? Measuring the Electoral Premium in Syndicated Lending ," 2017. Revise and Resubmit. Link to the paper
- "The Determinants of Cash Holdings and the Value of Excess Cash: Evidence from a Cross-Country Analysis" with Stephanie Curcuru, Mary Tian, and Carissa Tudor. Working Paper.

Presentations
- Society for Financial Studies Cavalcade, Georgetown University, Washington D.C. May, 2014
- Global Financial Institutions Workshop, Smith College, MA October, 2013
- Finance Forum, Board of Governors of the Federal Reserve System September, 2013

PROGRAMMING SKILLS

- Programming: STATA, SAS, R, SQL. Python and Matlab (familiar).
- Other: Git, Greenplum (parallel processing data platform), and experience working with big data (e.g., over 10 million data points).
- Finance databases: Experienced with Worldscope, Dealogic Loanware, Amadeus, Datastream, EPFR, Capital IQ, and Markit Bond, Compustat, CRSP, and ThomsonOne.
- Education databases: The Integrated Postsecondary Education Data System, National Student Clearinghouse, experience with complex administrative datasets.

HONORS AND AWARDS

- First Group Scholar, Smith College. 2010
- Outstanding Contribution Award in Model UN, Muenster University. 2010
- Dean's List, Smith College. 2008, 2009
- Yonsei International Summer School Scholarship, Yonsei University. 2009
- Dean's Scholarship Awards, American University 2009

EXTRACURRICULAR

- MIT Ice Hockey Intramural Winter 2014 - 2017
- Muenster University International Model United Nations, Muenster, Germany April 2010
  Model UN in the Economic and Social Council.

LANGUAGE SKILLS AND OTHER INTERESTS

- Language Skills: Korean (Native), English (Fluent), Italian (Fluent), Spanish (Intermediate)
- Other Interests: Cooking, Exercise, Painting, Reading, and Traveling.

2018 NBER Entrepreneurship Boot Camp Application: List of PhD Courses

February 10, 2018

Completed by topics

Economics

- Microeconomic Theory I
- Microeconomic Theory II (Game theory)
- Microeconomic Theory III (Decision theory)
- Microeconomic Theory IV (Contract theory)
- Statistical Method in Econ
- Econometrics
- Nonlinear Econometric Analysis
- Dynamic Optimization Methods
- Economic Growth [Audit]
- Economic Fluctuations [Audit]
- Economic Crises [Audit]
- Behavioral Economics

Finance

- Intro to Financial Economics
- Advanced Corporate Finance
- Advanced Financial Econ I (Adv Empirical Asset Pricing)

Currently Enrolled

- Adv Topics Financial Econ II (Continuous time finance)
- Current Topics in Finance (Adv. Corporate Finance II)
- Adv Topics in Industrial Org (Structural IO)

2018 NBER Entrepreneurship Boot Camp
Application Essay

Olivia S. Kim

February 12, 2018

I am writing to apply for the 2018 NBER Entrepreneurship boot camp. My primary research interest is in entrepreneurship, and I have an active research agenda related to the topics that will be covered at the boot camp. I believe that attending the boot camp will constitute a unique opportunity to be exposed to the frontier research in Entrepreneurship, to get a good grasp of potential research areas in the literature, and to be able to connect with professors and participants with similar research interests. This essay provides an overview of my academic background, motivation for applying, and my current and future research direction.

I am currently a second-year student at MIT Sloan in the finance department. *By this summer, I will have completed two years of the PhD course work.* During the first year of my PhD program, I have successfully completed the core course work in finance and economics required by the program. I will have completed advanced topics courses in finance and economics, such as continuous time asset pricing and structural industrial organization by the end of my second year. While I have always been fascinated by entrepreneurship as a field of research given its growing importance in the economy, an advanced corporate finance course, to which I am currently enrolled, strengthened my research interest. This course, offered by professors David Thesmar, Debbie Lucas, and Haoxiong Zhu, briefly covers topics in entrepreneurship, particularly around firm dynamism and firm's decision of entry and exit. Building on this course's solid introduction to the topic, I hope to learn more about the on-going debates and potential gaps to be explored in this topic by attending the boot camp.

In addition to my coursework, I had the opportunity to learn a great deal on the topic of entrepreneurship by working with professors Antoinette Schoar and Jonathan Parker during the first summer of my graduate school career. I became an Academic Fellow in the small business team at the JP Morgan Chase Institute, a think-tank that leverages the retail data of JP Morgan Chase customers to answer policy-relevant questions, to assist a project that examines how transitory shocks to small business revenues affect the consumption decisions of these entrepreneurial households. During this time, I have not only made progress on the academic research with professors Schoar and Parker, but have also contributed to the Institute's on-going research agenda on small business topics. Such topics include understanding the size of health insurance premium payments and business credit card utilization behavior of firms.

The research project I am collaborating with professors Schoar and Parker aims to understand whether transitory shocks to private business affect the spending decisions of these entrepreneurial households. While existing studies document that household liquidity and wealth influence firm entry and growth decisions (Evans and Jovanovic, 1989; Hurst and Lusardi, 2004; Schmalz, Sraer and Thesmar, 2017), less is known about the reverse mechanism. Moskowitz and Vissing-Jørgensen (2002) provide evidence that entrepreneurial investment is extremely concentrated and Angeletos and Calvet (2006) find that such undiversifiable en-

trepreneurial risk has a dampening effect in the macroeconomy. Building on this theory and evidence that suggest that the balance sheet of entrepreneurial households and their businesses are integrated, we attempt to make progress on this question by providing a direct evidence that transitory revenue shocks have a first-order impact on the every day financial decision of households of the business owners.

To that end, we construct detailed credit card and deposit account level data that links information about business cash flows to information about its owner's personal accounts. We consider a number of different strategies to carefully identify shocks to business cash flows that are not confounded by household decisions. In the first set of analysis, we use a distributed lag model to estimate the cumulative response of household outcomes as a function of residualized innovation to revenue. This impulse response analysis shows how changes in revenue and expenses lead to changes in credit use, business income, and household spending. In the second set of analysis, we consider how potentially exogenous increase in business credit card limit as a result of bank's timing rule affect household outcomes. This analysis is similar in spirit to Gross and Souleles (2002) and is on-goin. To shed light on why entrepreneurial households don't smooth consumption, we explore whether there's heterogeneity in the impact of revenue shocks across households and firms.

During my time at the Institute, I gained first-hand experience of using big, administrative data that will be valuable for furthering research agenda in entrepreneurship. I also attended numerous industry and policy conferences, where I had the opportunity to make contacts with both researchers and industry leaders at organizations that are actively engaged in understanding entrepreneurship dynamism, and providing services to entrepreneurs and small businesses in the U.S.. These organizations include the Small Business Administration, ADP, Dun & Bradstreet, among others. Building on my research and work experience at the Institute, I believe I can not only tremendously benefit from attending the boot camp to get a better understanding of the topical research questions in the field, but can also contribute to this academic community by sharing my experience of forming a partnership with external research institution that is actively engaged in producing research on this topic.

I plan on continuing research in entrepreneurship during my graduate school career and beyond. I am particularly excited to explore topics on the returns to being an entrepreneur and understanding the factors that drive individuals' decision to become an entrepreneur. I believe that the evolving landscape of finance industry from traditional bank lending to online lending and fintechs, as well as the evolving labor market via introduction of online platform economy are continuously affecting how entrepreneurs are formed, how they are financed, and the real and aggregate effects they have in the economy. Moreover, while the dynamism of young, employer firms is an active research area and is relatively well-understood, there is a remarkable dearth of credible evidence on how non-employer firms behave due to data limitations. Through my continued partnership with the JPMC Institute, I plan to make progress on this topic using previously unavailable micro data on non-employer firms.

Given my academic background and research interest, I believe that I am well-equipped to attend the boot camp and would greatly benefit from this opportunity. I very much appreciate the opportunity of being considered as a participant, and please do not hesitate to contact me for further questions. My CV and the list of course work provide additional information on my background. Thank you for your consideration and I look forward to hearing from you.

Sincerely,

Olivia S. Kim

References

Angeletos, George-Marios, and Laurent-Emmanuel Calvet. 2006. "Idiosyncratic Production Risk, Growth and the Business Cycle." *Journal of Monetary Economics*, 53: 1095–1115.

Evans, David S., and Boyan Jovanovic. 1989. "An Estimated Models of Entrepreneurial Choice under Liquidity Constraints." *Journal of Political Economy*, 97(4): 808–827.

Gross, David B., and Nicholas S. Souleles. 2002. "Do Liquidity Constraints and Interest Rates Matter for Consumer Behavior? Evidence from Credit Card Data." *Quarterly Journal of Economics*, 117(1): 149–185.

Hurst, Erik, and Annamaria Lusardi. 2004. "Liquidity Constraints, Household Wealth, and Entrepreneurship." *Journal of Political Economy*, 112(2): 319–347.

Moskowitz, Tobias J., and Annette Vissing-Jørgensen. 2002. "The Returns to Entrepreneurial Investment: A Private Equity Premium Puzzle?" *American Economic Review*, 92(4): 745–778.

Schmalz, Martin C., David A. Sraer, and David Thesmar. 2017. "Housing Collateral and Entrepreneurship." *Journal of Finance*, 72(1): 99–132.

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ANTOINETTE SCHOAR
Michael M. Koerner ('49)
Professor of Entrepreneurial Finance



Letter of Recommendation for Olivia Kim

March 2018

Dear Madam/Sir,

It is with great pleasure that I am writing a letter of recommendation for Olivia Kim as she applies for the NBER Entrepreneurship boot camp, 2018. I have known Olivia for the last two years, from the time she started as a PhD student in our finance program. For the last year and a half, she has also been working with my colleague Jonathan Parker and me on a project with data from the JP Morgan Chase Institute in DC. We had originally hired Oliva purely as a research assistant but within a few weeks we were so impressed with her maturity and creativity that she made a her a co-author on the project. Olivia is one of the best PhD students I have worked with in my time at MIT Sloan. She is a very bright and thoughtful empiricist who combines a strong curiosity for interesting new phenomena with thorough training in economic and finance theory. She started out with an interest in household finance and corporate finance but through our join worked has become very interested in entrepreneurship. The work at the JP Morgan Chase Institute will give her access to unique data on small businesses, their entire payment histories and cash flows. People at JPMCI are so impressed with her that they tried to hire out of the PhD program after a couple of weeks of her working on the project! I obviously made sure that this does not happen.

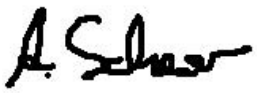
The project we are working on combines the personal transaction and credit accounts of small business owners matched to the accounts of their businesses. This is the only data set in the US that provides information on such granular level on both sides of a small business's finances. It will allow us to gain unique insights into the interaction between business and personal finances for small business owners. We look at how shocks to the business on household consumption, savings and borrowing affect's the owners consumption and savings. We also want to understand whether owners of small businesses are able to smooth cash flow shocks either through financial means or changing savings patterns. We are also able to exploit several shocks to credit availability to analyze the importance of access to finance for the transmission of shocks from the business to the household. Given the importance of small

businesses for the economy this is an important and unexplored area of research. Olivia is also working on an independent project using this data to look at labor market shocks which affect the cost structure of small businesses to understand how these firms adjust to such shocks.

In sum, Olivia is an exceptional student, bright and creative who has a lot of upside. I believe that she in on a very promising trajectory to become a first-rate economist and I expect her to do excellent research work going forward. Her interest is in the interception of finance and entrepreneurship, and I believe she will benefit tremendously from the boot camp. Last but not least she is also a very pleasant and constructive person who brings a lot of positive energy and enthusiasm to her work and other students turn to her for advice and ideas. 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