March 19, 2021

To:
NBER
Cambridge
Massachusetts
USA

To whom it may concern:

I am writing to express my interest in the NBER Entrepreneurship Research Boot Camp 2021 program.

My name is Sherry Xue, a third-year PhD in Finance student at the London School of Economics. I also hold a BSc and an MPhil degree from the Chinese University of Hong Kong. I learnt about this boot camp through some senior students at my department, and they strongly recommended it. After visiting your website, I am genuinely fascinated by this excellent opportunity to meet with active researchers and discuss cutting edge research in entrepreneurship.

In this document, I attached my CV, the list of current and completed PhD course, and my essay. I hope they can help you understand my passion, experience, and skills. If you have any question, please feel free to contact me.

Here are my complete contact information:
Legal name: Yun Xue (Ms.)
Preferred name: Sherry
To reach me via email: y.xue9@lse.ac.uk (primary, university email)

My recommendation letter writer: Dr Juanita Gonzalez-Uribe

Curriculum Vitae

Contacts: +44 7421840095 | y.xue9@lse.ac.uk

Education

PHD. IN FINANCE | 2018 – PRESENT | LONDON SCHOOL OF ECONOMICS

- Completed MRes degree with distinction in 2020
- Research interest: corporate venture capital, entrepreneurship, and innovation

M.PHIL. IN FINANCE | 2016 – 2018 | CHINESE UNIVERSITY OF HONG KONG

- GPA: 3.93/4.00
- Fully funded

BACHELOR OF SCIENCE | 2012-2016 | THE CHINESE UNIVERSITY OF HONG KONG

- Major: Quantitative Finance

Work in Progress

BILATERAL KNOWLEDGE TRANSFER IN CORPORATE VENTURE CAPITAL INVESTMENTS?

- In this project, I attempt to answer the following question: Does corporate venture capital investment facilitates knowledge transfer between the corporate investor and the venture? On the bright side, I argue that there is potentially a lot to share and learn between the corporate investor and its portfolio companies. However, a conflict of interest due to product market competition may prevent this knowledge transfer from happening. To empirically investigate the role of product market relationship on knowledge transfer, I create two industry-pair level product market complementarity and competition measures. Both measures show that knowledge transfer, proxied by patent citation and reassignment, happened most frequently in a goldilocks zone where the corporate and the venture are most likely having a complementary relationship. If there is a weak or no product market relationship, there is no significant increase in knowledge transfer between the two parties after the CVC investment event. If the product relationship is more likely to be competitive, there is no significant increase in citations made by the venture, but there is weak evidence towards an increase in citations made by the corporate investor to the venture.

Research Experience

RESEARCH ASSISTANT (PART-TIME) | JUNE 2019 – PRESENT

- Assisting Dr. Juanita Gonzalez-Uribe in her projects on firm innovation. I am dealing with USTPO patent data, PATSTAT, Compustat Global, and CRSP.

RESEARCH ASSISTANT (PART-TIME/SUMMER FULL-TIME) | APRIL 2015 – AUG. 2018

- I assisted Dr. Zhenyu Gao with various research projects on firm innovation and investor sentiment.

Other Employments

ASSURANCE INTERN | ERNST&YOUNG, SHANGHAI | DEC. 2014 – JAN. 2015

Awards & Honors

- Abraaj Capital Scholarship, LSE, 2019-present
- LSE Scholarship, LSE, 2018-2019
- Postgraduate Studentship, CUHK, 2016-2018
- Master's List, Morningside College CUHK, 2013-2014, 2016-2017
- National Investment Banking Competition Finalist, Vancouver, 2016
- Reaching Out Award, Hong Kong SAR Government Scholarship Fund, 2015/16
- Morningside College Scholarship, CUHK, 2013-2014

Skills

- English Language: TOEFL: 111 | GRE: 331
- Programming: STATA, SAS, Python

A list of all current and completed PhD courses:

- Financial Econometrics for Research Students (Distinction)
- Macroeconomics for MRes students (Merit)
- Microeconomics for MRes students (Distinction)
- Research paper in Finance ("2nd-year paper", Distinction)
- Corporate Finance for Research Students (Distinction)
- Asset Pricing for Research Students (Distinction)
- Basic readings in Business (offered by London Business School)
- PhD Seminar in Finance (current)

A two-page essay that explains why the applicant wants to attend the boot camp. This should include a brief description of the applicant's current and future research direction

As a consumer who loves trying new stuff, I have been constantly fascinated by technology's evolution. I was recently intrigued by how powerful a tablet can be as a tool to take notes in class just like what I used to do with a pen and a notebook, and still enable me to write codes on STATA in coffee shops and libraries like a regular laptop. Most importantly, it so light weighted that I can easily carry it with me anywhere I go. Innovation is something that can genuinely improve everyone's well-being and nourish the economy.

I am particularly interested in the relationship between product market competition and innovation. To my limited knowledge, this is an area that remains largely unexplored. Starting from exactly one year ago, I started working on product market competition measures and applying the measures in the corporate venture capital investment setting. The reason being: corporate investors are naturally active product market players. How would this product market relationship affect investment target selection? How would this affect the interaction between CVC and its portfolio companies? Taking one step back, how does a corporate investor choose between majority investment and minority investment? I have a pipeline of research questions that I wish to address.

My current work in progress focused on the knowledge transfers between corporate investors and their portfolio companies. I argue that on the bright side, there is potentially a lot to share and learn between the corporate investor and its portfolio companies. However, a conflict of interest due to product market competition may prevent this knowledge transfer from happening. To empirically investigate the role of product market relationship on knowledge transfer, I create two industry-pair level measures of product market complementarity and competition. Both measures show that knowledge transfer, proxied by patent citation and reassignment, happened most frequently in a goldilocks zone where the corporate and the venture are most likely having a complementary relationship. If there is a weak or no product market relationship, there is no significant increase in knowledge transfer between the two parties after the CVC investment event. If the product relationship is more likely to be competitive, there is no significant increase in citations made by the venture, but there is weak evidence towards an increase in citations made by the corporate investor to the venture.

This project is not perfect because I ignored the selection issue. From an equilibrium point of view, we should not exact to see much CVC money flowing to start-ups that could pose a future threat to the corporate investor's key business. Why do we observe investments of this type in reality? Is this because the CVC can offer a more attractive contract to the entrepreneur? How does the entrepreneur deal with the tension between better monetary payoff and more independence in market competition? There is potentially a lot more to explore and improve, which comes back to why I am applying for this boot camp.

As a freshman in this field, I want to quickly build up my knowledge of the emerging questions and technics in entrepreneurship to enhance my research. By taking part in this boot camp where the instructors are those who made significant contributions to this field and discussing with a group of talented fellow students, I believe my horizon will be significantly broadened, and new ideas will be boosted to answer better the questions that I currently have.

Before starting my journey in corporate venture capital research, I gained experience in the field of entrepreneurial Finance during my research assistance work for Dr Juanita Gonzalez-Uribe. She is writing the reference letter for my application. During the past two years, I have been intensively dealing with the patent data from USPTO and EPO (PATSTAT). I established links between patent assignees and a sample of international companies using the fuzzy match technique. I calculated patent characteristics such as originality and generality. Getting familiar with the patent data enable me to understand what I can know from the publicly available data (e.g. we can track the innovators' movement among companies) and what the problems associated with patent data (e.g. assignees are usually subsidiaries and there is no apparent link to the companies on Compustat) are.

I am genuinely excited about my current research direction, and I keep realizing that I still have a lot to learn. What can be a more efficient way of learning than participating in the NBER boot camp 2021 and directly learn from the best? Perhaps only an in-person version of this boot camp can.

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25 March 2021

Reference Letter for Yun (Sherry) Xue

Dear NBER Entrepreneurship Bootcamp Committee:

I am delighted to write this letter in support of **Yun (Sherry) Xue**, a finance Ph.D. candidate at the London School of Economics who works in the areas of entrepreneurial finance and empirical corporate finance.

Sherry has served as my RA for the past years and will now begin to work as my co-author in a new project on venture capital trusts—a form of publicly-traded venture capital funds in the UK. As an RA, Sherry has showcased three strong qualities: creativity in approaching empirical work (for example, by sourcing novel datasets), hard-work ethic, and intellectual curiosity. These qualities are fundamental for entrepreneurial finance research, where settings are seldom standard and data is usually complex to obtain and process.

As a co-author, Sherry has been a pleasure to work with. Our project has just begun, but she has already contributed by offering solutions to the project's empirical challenges and thinking through the conceptual points underlying the practical work.

Sherry's solo work has focused on corporate venture capital and innovation. Her main interest is in innovation exchanges and technological and product overlap between corporate sponsors and portfolio firms. As part of her second-year summer project, she developed several promising technological overlap proxies using textual analysis. For the same project, she also worked extensively with US and European patent data.

I believe that Sherry's work can significantly contribute to the private equity and innovation fields by focusing on corporate venture capital, an area that remains relatively understudied.

Relative to recent work, her current research extends Song Ma's study on the life cycle of CVC by investigating how the technological and product market relationship between corporates and start-ups affects both selection and interactions post-investment. In the future, Sherry plans to explore extensions of her work to analyze the Corporate Venture Scheme's impact—a UK

government-sponsored scheme to promote corporate venture capital. Besides providing a potential exogenous source of variation in access to corporate venture capital, this extension would exploit a significant advantage of the UK relative to other countries: the ability to access private companies' performance data.

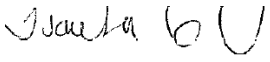
Sherry is at the perfect moment of her research journey to take part in the prestigious NBER Entrepreneurship Bootcamp. Over the past couple of years, she has built significant expertise in corporate venture capital, US and European patent data, and UK innovation policy. Thus, she is at the perfect moment to fully take advantage of having access to experienced researchers in the entrepreneurship and entrepreneurial finance areas. Coming from the UK, Sherry would also greatly benefit from having exposure and contact with US-based researchers and students with similar interests.

I participated in the NBER Entrepreneurship Bootcamp in 2012 and still remember very fondly how useful it was for me in helping shape my research ideas and build a network. I am confident Sherry would have a similar experience to mine, and possibly even better! Other students would find in her a great and enthusiastic team player. She is easy to be around and always eager to talk about research and exchange ideas. She is smart, asks good questions, and knows to listen and learn from feedback.

Overall, I think Sherry is a great candidate for the NBER Entrepreneurship Bootcamp.

Please do not hesitate to contact me if I can provide any additional information.

Yours sincerely,



Juanita Gonzalez Uribe
Department of Finance
London School of Economics