Cover Letter

Applicant:
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Dear Professors,

I am writing to apply to the NBER Entrepreneurship Research Boot Camp 2021. I am a third-year finance PhD student at Columbia Business School. My research interests are corporate finance, innovation, entrepreneurial finance, and corporate governance. The topics that I have been working on include the effects of privacy regulation on innovation and entrepreneurial activities, the voting performance of mutual funds and its welfare implications, the interaction between hedge fund activists and short-sellers under the influence of passive governance, and the effects of Special Purpose Acquisition Companies (SPAC) on Venture Capital firms' choices of capital allocation. With a keen interest in innovation and entrepreneurial finance, I hope to deepen my understanding of the area by attending the workshop and engaging in research discussions with other PhD students and professors.

I have attached my Curriculum Vitae (including a list of all current and completed PhD courses) and research statement. Thank you!

Sincerely,

Junjun Quan

Junjun Quan

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

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Education

Columbia University
Ph.D. in Finance and Economics — *Aug. 2018 – May 2023*

Fudan University
Bachelor of Science in Physics — *Sept. 2013 – June 2017*

UC Berkeley
Exchange Student — *Jan. 2016 – Aug. 2017*

Yale University
Summer School — *July 2015 – Aug. 2015*

Work in Progress

Voter IQ (with Alon Brav, Wei Jiang, and Doron Levit)
We study mutual funds' voting performance from their voting records in proxy contests and introduce a new measure of voting intelligence (Voter IQ), in contrast to fund managers' skills in generating high portfolio returns. We explore both a market-based non-parametric approach and a model-based structural approach. We find that, on average, active funds exhibit higher voting intelligence than passive funds, and top fund families with a large fraction of assets passively managed have low Voter IQ. Our measure is effective at differentiating voting ability—a fund that votes randomly or mechanically in one direction will be placed at the bottom of the IQ distribution. High-IQ funds guide their voting decisions with information and vote similar to each other, especially in contentious proxy fights. Furthermore, we test the external validity of our results by analyzing the regular shareholder and management proposal and show that high-IQ funds exhibit similar voting patterns.

Data, Privacy, and Innovation
I study the impact of data privacy regulation (General Data Protection Regulation) on innovation and entrepreneurial activities. I use a difference-in-differences method and analyze the differential impact on US companies with exposure to EU businesses and US companies that do not offer services and products to EU citizens. I measure the intensity of innovation activities by market reactions to patent granting news (Kogan et al. 2017). I find that the regulation reduced the innovation activities of data-intensive industries by 15%. Furthermore, I examine the regulation's impact on firms' hiring decisions and productivity.

The Long-Short Fight Under the Influence of Passive Governance

SPAC and VC's Choices

Research Experiences

Full-time research assistant for Ulrike Malmendier, UC Berkeley	Aug. 2017 – July 2018
Research assistant for Wei Jiang, Columbia University	July. 2019 – June 2020
Research assistant for Stijn Van Nieuwerburgh, Columbia University	July. 2019 – June 2020

Fellowships and Honors

Doctoral Fellowship, Columbia Business School	2018-2023
Outstanding Graduate, Fudan University	2017
Honor Student, Physics Department, Fudan University	2015-2017
First-Class Student Scholarship , Fudan University	2017
Shanghai Scholarship, Fudan University	2015

Workshop Participation

NBER Doctoral Student Workshop on Economics of Artificial Intelligence	2020
The Princeton Initiative	2020
Financial Economics of Insurance	2019
The 30th Jerusalem Advanced School in Economic Theory: Finance	2019
MIT-FARFE Capital Markets Research Workshop	2019

Doctoral Courses

Microeconomic Analysis I (A)	Microeconomic Analysis II (A)
Econometrics I (Honors)	Time Series Analysis (Honors)
Panel Data (Honors)	Big Data in Finance (Honors)
Continuous Time Finance (Honors)	Finance Theory I (Honors-)
Microstructure Theory (Honors-)	Structural Estimation (Honors)
Real Estate Finance (Honors)	Empirical Asset Pricing (Honors-)
Asset Pricing Theory (Honors)	Corporate Finance Theory (Honors)
Household Finance (A)	Empirical Corporate Finance
Information Economics	Macro Finance

Skills

Programming: Python, R, Stata, MATLAB, Fortran
Languages: Mandarin (Native), English (Fluent)
Sports: Tennis

Research Statement

I am a third-year finance PhD student at Columbia Business School. My research interests are corporate finance, innovation, entrepreneurial finance, and corporate governance. The topics that I have been working on include the effects of privacy regulation on innovation and entrepreneurial activities, the voting performance of mutual funds and its welfare implications, the interaction between hedge fund activists and short-sellers under the influence of passive governance, and the effects of Special Purpose Acquisition Companies (SPAC) on VC's choices of capital allocation. With a keen interest in innovation and entrepreneurial finance, I hope to deepen my understanding of the area by attending the workshop and engaging in research discussions with fellow PhD students and professors. Even bounded by the virtual format, I am hopeful there will be plenty of opportunities to socialize, share insights, and get feedback on my research.

Nowadays, big data has become an indispensable part of corporate innovation. The fast advancement in computing power and artificial intelligence have made large-scale data collection and analysis accessible and vital for every modern enterprise (Abis and Veldkamp 2020; Veldkamp and Chung 2019). The data generated from our everyday activities are used to facilitate marketing, the creation of new products, and technology innovation. At the same time, concerns and evidence of privacy violation have been mounting and caught policymakers' attention. In the wake of several major data breaches at high-profile tech companies, e.g., Facebook-Cambridge Analytica data scandal, the European Union enacted the General Data Protection Regulation, aiming to give the control of data back to consumers. With firms required to ask for permissions while gaining access to data explicitly, the intensity of innovation reliant on data and the type of innovation might be affected. This motivates my project to study the impact of privacy regulation on innovation and entrepreneurial activities. I use a difference-in-differences method and study the differential impact on US companies with exposure to EU businesses and US companies that do not offer services and products to EU citizens. To measure the intensity of innovation activities, I use an approach based on market reactions to patent granting news (Kogan et al. 2017). I find that the regulation reduced the innovation activities of data-intensive industries by 15%. Furthermore, I examine the regulation's effects on firms' hiring decisions and productivity. Also, the privacy regulation might have disproportionately affected smaller firms than larger firms because the latter are in a better position to navigate legal issues. Therefore, the regulation will also have implications for tech start-ups and entrepreneurial activities (Jia et al. 2018, 2020).

I have also been working on topics in corporate governance. In one joint work with Alon Brav, Wei Jiang, and Doron Levit, we study mutual funds' voting performance from their voting records in proxy contests and introduce a new measure of voting intelligence (Voter IQ), in contrast to

fund managers' skills in generating high portfolio returns. We explore both a market-based non-parametric approach and a model-based structural approach. We find that, on average, active funds exhibit higher voting intelligence than passive funds, and top fund families with a large fraction of assets passively managed have low Voter IQ. Our measure is effective at differentiating voting ability—a fund that votes randomly or mechanically in one direction will be placed at the bottom of the IQ distribution. High-IQ funds guide their voting decisions with information and vote similar to each other, especially in contentious proxy fights. Furthermore, we test our results' external validity by analyzing the regular shareholder and management proposals and showing that high-IQ funds exhibit similar voting patterns.

Special purpose acquisition company (SPAC) has become a new phenomenon in the capital market. Compared to the traditional IPO process, SPAC presents itself as a more accessible and less costly way for early-stage growth companies to tap the public capital market. While sitting out the early wave in SPAC, Venture Capital (VC) firms are starting to catch up with the game. As Weinberg from D. F. King & Co. put it, SPACs are going to stay. However, we have very little understanding of the potential effects. In this project, I aim to understand how this will affect the way Venture capital firms allocate their capital and its implications on the broader capital market. In another project, I have also been working on a model to formalize the interaction between hedge fund activists and short-sellers under the influence of passive governance.

This workshop not only offers lectures on entrepreneurial economics and finance that will deepen my understanding of the area but also presents an excellent opportunity for me to socialize with fellow PhD students and professors working on similar topics. I believe my participation will also contribute to the lively research discussion at the workshop.

References

Abis, S. and Veldkamp, L. (2020). The Changing Economics of Knowledge Production. *SSRN Electronic Journal*.

Jia, J., Jin, G. Z., and Wagman, L. (2018). The short-run effects of GDPR on technology venture investment. Technical report, National Bureau of Economic Research.

Jia, J., Jin, G. Z., and Wagman, L. (2020). GDPR and the localness of venture investment. *Available at SSRN 3436535*.

Kogan, L., Papanikolaou, D., Seru, A., and Stoffman, N. (2017). Technological Innovation, Resource Allocation, and Growth*. *The Quarterly Journal of Economics*, 132(2):665–712.

Veldkamp, L. and Chung, C. (2019). Data and the aggregate economy. *preparation for the Journal of Economic Literature*.

Columbia Business School

Wei Jiang
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Professor David Robinson
Fuqua Business School

Re: Reference for Junjun Quan

March 26, 2021

Dear David:

With this letter I offer my strongest support for Junjun Quan's application for the "NBER Entrepreneurship Research Boot Camp 2021" you are organizing. It is an important service you are providing to the profession, thank you! I believe Junjun is well prepared for and will benefit immensely from joining the camp.

Junjun is among the most promising students of his cohort in our Ph.D. program. He joined our Ph.D. program with an extremely supportive recommendation from Ulrike Malmendier for whom he worked one year as a full-time research assistant. Junjun is currently a third-year Ph.D. student. He has excelled in course work, has been a superb research assistant, and more recently, a wonderful coauthor. A current project we (together with Alon Brav and Doron Levit) work on, entitled "Voter IQ," models and estimates "voting intelligence" of mutual funds in proxy contests and controversial shareholder proposals. This is a new dimension in portfolio manager performance that is distinct from generating "alphas" for delegated portfolios. Junjun has been instrumental in developing the structural estimation method to map a theory model into empirical data, and has demonstrated all the good qualities for a researcher. I am quite confident that your colleagues Alon Brav will give Junjun raving reviews if you check with him.

Junjun's independent project aims to analyze the trade-off between data privacy and innovation, a topic that is highly relevant to entrepreneurship. The setup is based on the General Data Protection Regulation in EU, where a difference-in-difference method could be applied to study the differential impact on the

US. Companies with exposure to EU business versus those without direct exposure. Preliminary results show that the regulation reduced the innovation activities of data-intensive industries by about 15%. Receiving the education, as well as interacting with like-minded scholars and peers, will be extremely helpful for Junjun to go deeper in this project. I am also confident that Junjun will contribute to the camp in very positive ways as he is both thoughtful and creative, in unassuming ways.

Sincerely yours,

