CELINE (YUE) FEI

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Updated: Nov., 2021

RESEARCH INTERESTS

Primary: **Venture Capital**, **Private Equity**, **Entrepreneurship**, **Fintech**
Secondary: Machine Learning, Financial Innovation, Chinese Economy

REFERENCES

Prof. Gregory W. Brown
Professor in Finance
Kenan-Flagler Business School
University of North Carolina at Chapel Hill
300 Kenan Center Dr., Chapel Hill, NC 27599, USA
gregory_brown@kenan-flagler.unc.edu
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Prof. Ulrich Hege
Professor in Finance
Finance Group
Toulouse School of Economics
21 All. de Brienne, Toulouse 31000, France
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Prof. Josh Lerner
Professor in Finance
Harvard Business School
Harvard University
Soldiers Field, Boston, MA 02163, USA
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EMPLOYMENT

The University of North Carolina at Chapel Hill (UNC) 2019-
Kenan-Flagler Business School, *Chapel Hill*, *NC*
Post-Doctoral Research Associate

EDUCATION

Toulouse School of Economics (TSE), *Toulouse*, *France* 2019
***Ph.D.* in Economics**
Dissertation Title: "*Essays on Venture Capital and Innovation*"
Committee: Milo Bianchi, Ulrich Hege,
Adrien Matray and Giovanna Nicodano
***M.Phil.* in Economics** 2015
***M.S.* in Economic Theory & Econometrics**, *highest honors* 2014

Central University of Finance and Economics (CUFE) 2009-2013
China Economics and Management Academy, *Beijing*, *China*
***B.A.* in Mathematical Economics and Finance** *(Rank: 1/75)*

RESEARCH PAPERS

1. Fintech and Racial Barriers in Small Business Lending, with Keer Yang
Job Market Paper

Abstract
Using a linked database of Paycheck Protection Program (PPP) loans and Yelp-listed restaurants, we document that businesses owned by minority racial groups are more likely to use fintech lenders than traditional lenders. We develop a simple two-sided matching model to show that this phenomenon can be generated by differences in performance among borrowers, racial disparities in lending relationships, and race-dependent values of borrower-lender matches. We do not find consistent evidence that operational performance is an explanation. We find supporting evidence that minority-owned restaurants are less likely to have lending relationships and that restaurants without lending relationships are more likely to use fintech lenders. We also find a more negative minority-non-minority gap in operational performance for fintech lenders, suggesting minorityowned businesses have higher matching values with fintech lenders. We do not find a similar pattern for first-time bank participants, community development financial institutions, credit unions, or other non-federally insured lenders. Overall, our results suggest that there are racial barriers in traditional loan distribution channels and this can be at least partially addressed by fintech lenders.

Grant:2021 Kenan Institute Small Research Grant

2. Portfolio Management in Private Equity, with Gregory W. Brown

Abstract
While there is a large literature on portfolio management for funds managing publicly-traded securities, very little is known about portfolios of private equity funds. In this paper we present new evidence on portfolio management of private equity (PE) buyout funds using high-quality deal-level data from Burgiss. Specifically, we examine global investments in 5,925 portfolio companies to determine the importance of investment size, sector specialization, and regional specialization on fund returns and risk. Our study shows both differences and similarities between portfolio management in mutual funds and private equity funds. Unlike the finding that "best ideas" in mutual funds outperform (Antón, Cohen, and Polk, 2021), we find that deals representing a larger percentage of fund assets have lower returns in PE funds. However, these larger investments are also less risky on average which is consistent with fund managers (i.e., general partner, GP) deliberately choosing not to "bet-the-farm" on any one deal. Similar to findings for venture capital funds (Gompers, Kovner, and Lerner, 2009) and mutual funds (Kacperczyk, Sialm, and Zheng, 2005), we find that a higher degree of industry or geographic concentration is associated with both higher fund returns as well as a higher fund risk. Our results also suggest that the skill level of the GP affects portfolio decisions. The negative relationship between deal-size and return is mitigated by GP skill, consistent with the hypothesis that operational risk management of large deals is easier for more skilled GPs. Performance related to

geographic concentration is persistent for a given GP and increases with the level of GP skill, suggesting that concentration degree is a style characteristic of fund managers that forms along with the accumulation of skill.

3. Can Governments Foster the Development of Venture Capital?

Abstract
Exploring a novel dataset and a unique policy experiment, this paper examines the role of government intervention in the emergence of venture capital (VC) in China during 1999-2013. Using the difference-in-difference methodology, I find that the staggered introduction of a central government program leads to an increase in local investments from both government and private VCs, which amounts to a double in the number of successful exits. The positive impact is most pronounced in relatively less developed regions and during the early development of the VC sector. I present two micro-level transmission channels of this crowding-in effect, through networks formed by previous investments and through co-ownership in VC affiliates.

4. (Under)performance of Government Venture Capitalists: New Evidence and Explanations

Abstract
I investigate the exit outcomes of start-ups backed by government VCs (GVCs) and private VCs (PVCs), using a sample of 8,106 start-ups in China funded by VCs between 1991 and 2013 and exit information updated in 2018. I find that start-ups backed by GVCs are less likely to exit through domestic Initial Public Offerings (IPOs), oversea IPOs, and M&As. I explore three potential explanations. Firstly, evidence shows that GVCs support younger and innovation-oriented start-ups. Secondly, I find that the performance gap between GVCs and PVCs narrows in more mature VC markets. Thirdly, I exploit political turnover as an exogenous shock to political connections and find that deals made during times of political turnover by both GVCs and PVCs have a lower probability of successful exits. However, no significant evidence suggests that the performance gap varies during times of political turnover.

ADVANCED WORK IN PROGRESS

5. IPO Liberalization and The Feedback Effects on The Venture Capital Market, with Ulrich Hege

Abstract
Using the introduction of junior stock market boards geared to start-ups in China, we study the feedback effects of stock market liberalization on venture capital investments. The opening announcements of the new stock markets functioned like quasi-experiments as their dates were hard to predict over a protracted period. We build the most comprehensive data set on Chinese VC-backed companies to date by training a machine-learning algorithm on the business scope text and classify firms in the mandatory government registry data of companies. Exploiting a specific regulation-driven variation in industry treatment intensities and using the difference-in-difference methodology, we find that successive stock market reforms that

facilitate venture capital exits lead to an increase in venture capital activity, especially for early-stage investments. We also find evidence that that the reforms lead to a shift towards investments closer to IPO exits, and increase the liquidity of the VC funding market. Cross-border investors seem to react particularly strongly to the reform.

Grant: CEIBS-Cathay Cross-Border Private Equity Research Fund ($10,000)

PH.D. THESIS	Chapter 1 Can Governments Foster the Development of Venture Capital? Chapter 2 (Under)performance of Government Venture Capitalists Chapter 3 Firm Level Match under Imperfect Information Along the Global Value Chain (joint with Rui Zhang)	
PRESENTATIONS	AlpInvest-IPC Private Equity Research Symposium (*) Annual Meeting Academy of Entrepreneurial Finance Boca Corporate Finance and Governance Conference (scheduled) NBER Entrepreneurship Working Group Meeting (scheduled) UNC Chapel Hill	2021
	Shanghai Tech, School of Entrepreneurship and Management	2020
	China International Conference in Finance (CICF) SFS Asian-Pacific Cavalcade WRDS Advanced Research Scholar Program Aalto University, Department of Finance Central University of Finance and Economics, CEMA Erasmus University, Rotterdam School of Management Humboldt-University of Berlin, Finance Group Peking University, National School of Development University of Mannheim, Business School	2019
	European Winter Meeting of the Econometric Society HEC Paris PhD Workshop Royal Economic Society PhD Meeting **Presented by co-authors*	2018
SERVICE	Program Committee: Eastern Finance Association 2022	
	Volunteer Master Thesis Supervision (1)	2021
OTHER CONTRIBUTIONS	Private Equity Research Consortium White Paper "Debt and Leverage in Private Equity: A Survey of Existing Results and New Findings"	2020
SELECTED HONOURS & AWARDS	TSE Job Market Scholarship	2018
	TSE Doctoral Fellowship	2014
	France Eiffel Excellence Scholarship	2013

	Beijing Excellent Undergraduate Award	2013
	Beijing Three-Merit Student Award	2012
	China National Scholarship	2010, 2011

TEACHING (*TA*)

Toulouse
Corporate Finance (master 2018)
Econometrics (undergraduate, 2018)
Macroeconomics (Ph.D. Core, 2016, 2015)
Macroeconomics (undergraduate 2015)
** Due technical issues, TSE cannot provide teaching evaluations for individual TAs.*
CUFE
Real Analysis (undergraduate, 2012)

SKILLS

Computer: Stata, Python (pandas, Natural Language Processing, scipy)
MATLAB/Octave, SAS, Latex
Pitchbook, CapitalIQ, Reuters, CBinsights, crunchbase
Neural Networks and Deep Learning, Coursera Course Certificates (Issued 2019)
Chartered Financial Analyst (**CFA**) Level 1 (High Pass in all subjects, Issued 2016)

PERSONAL

Language: Chinese, English, French (basic), Japanese (very basic), Spanish (basic)

Hobbies: Hiking, Yoga, Classic Music, Singing, Wine Tasting, Board Game
Guqin (Flowing Waters, Misty Xiao Xiang, Plum Blossoms, Spring Wind)
Electronic Keyboard (Level 10 at the age of 12, *Shanghai Conservatory of Music*)
Championship Mathematics Competition

Citizenship: Chinese