Basic Information Summary of Chengmou Lei

Chengmou Lei (cmlei@umd.edu)

January 25, 2025

Name: Chengmou Lei

Email: cmlei@umd.edu

Phone Number: +1 2407918041

School: Finance Department, Smith Business School, University of Maryland (College Park)

Entry of PhD program: September 2023, finish the second year by the time of the Camp

Name of Recommendation Letter Writer: Liu Yang, Associate Professor in Finance (Tenured), lyang1@umd.edu

Areas of Interest: Entrepreneurship, Innovation, Corporate Finance

CHENGMOU LEI

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EDUCATION

University of Maryland - Smith Business School (UMD) 2023-Today
PhD in Finance

Einaudi Institute for Economics and Finance (EIEF, Bank of Italy) & LUISS University 2021-2023
Master in Economics and Finance, 110/110, Full Score on Thesis
Full Scholarship (Tuition Waive + Stipend)

Central University of Finance and Economics (CUFE) 2017-2021
Bachelor in Finance, 89.51/100 (3.7/4.0)

WORK IN PROGRESS

Venture Capital (VC): Bigger-Is-Better Mantra and the Cost of Funding for Stratups

- I try to investigate the impact of an emerging trend: increased concentration in established VCs and emerging micro VCs. I plan to use PitchBook data to answer the following questions: Does the increased concentration of funds in established VC cause an increase in startups' funding costs? Will the established VCs delay their investment to reduce risk and leverage market power to obtain the same return? If there is a delay in the investment stage, can it be filled with micro VCs? How do micro VCs affect startups' performance if they substitute for established ones?

A Tale of Two Investors
Coauthor: Xiao Zhang (Finance, UMD)

- We investigate how investor dispersion affects firms' behaviors. When there are both short-term and long-term investors, a firm's optimal strategy is to choose investment projects aligned with investors' average horizon. However, when the dispersion is high, it is harder for firms to please all investors. Therefore, when a change in investors' horizon or a negative shock requires a firm to adjust its investment, it is more costly for them to adjust towards the optimal. Managers may, therefore, choose not to do anything or cater to only a specific type of investor.

PAST WORKS

Revisit labor market concentration under Work-From-Home: An Integration of Labor Market Boundaries
Supervisor: Alex Xi He (UMD)
Presented: Finance Brownbag, University of Maryland

- Post-COVID work-from-home (WFH) policies have reduced geographic constraints, enabling workers to access remote job opportunities across regions. This shift has expanded local labor market boundaries and altered labor market concentration levels. In this study, I adjust a traditional concentration measurement to include remote job postings and analyze the impact of WFH on labor market concentration using the difference-in-differences (DID) approach. I find that excluding remote jobs significantly biases the concentration estimate. Additionally, I re-estimate the effect of concentration on wages using the two-stage least squares (2SLS) method, finding that concentration exerts downward pressure on wages for occupations with lower education requirements. In contrast, wages for occupations with higher education requirements increase with concentration. These results suggest supply-side shifts in the labor market.

How M&A Affects Firm TFP – a View from Technology Synergy
Supervisor: Fabiano Schivardi (EIEF, Bank of Italy)

- I investigate whether technology synergy affects firm productivity after merger and acquisition (M&A). I distinguish synergy into similarity and complementary. The prior measures the extent to which two firms build on the same knowledge base, and the latter measures the extent to which two firms build on each other's existing knowledge. I observe heterogeneous patterns across low-synergy and high-synergy groups and across different types of synergy. Firms with low technology similarity experience smaller and later efficiency growth than firms with high similarity. Taking into account the extent of reliance on each other's past knowledge, the efficiency increase is more significant. For complementarity, firms with low complementarity also experience smaller and later efficiency growth than firms with high complementarity. Yet, firms with low complementarity still experience larger efficiency growth than firms with low similarity.

How M&A affect Inventor Mobility May 2022 - June 2023
Research Assistant, Supervisor: Franklin Qian (UNC Kenan-Flagler)

- The paper aims to track inventor mobility based on patent records to see whether the acquirer and what type of acquirer retains the target's inventors and target's of inventors will be retained.
- I constructed a comprehensive dataset of M&A deal information and calculated various quantity and quality innovation measurements using patent data from PatentView. I also conducted a preliminary analysis of innovation output at firm-level prior M&A activities using propensity score matching and used Lasso machine learning to select variables

SKILLS

Computer Stata, Python, SAS, SPSS, R
Language Mandarin Chinese, English, Italian

Application Statement for NBER Entrepreneurship Boot Camp 2025

Chengmou Lei (cmlei@umd.edu)

January 25, 2025

My motivation to participate in the NBER Entrepreneurship Boot Camp stems from three key reasons: 1) the lack of a dedicated entrepreneurship course at the University of Maryland makes this Camp an invaluable opportunity to gain a systematic overview of leading topics in the field; 2) I want to interact with Yael Hochberg, Josh Lerner, and David Robinson, whose works on entrepreneurial financing and minority entrepreneurship gaps align closely with my research interests; 3) I have developed a preliminary research agenda, and I am eager to refine and deepen it through the Camp. In the subsequent sections of this essay, I will discuss three facets of entrepreneurship that captivate me. These three aspects are also my future research directions. I will then outline my current and past research projects related to these topics.

The first aspect of entrepreneurship that fascinates me is startup financing. Anecdotal evidence suggests an increasing concentration of funds among large, well-established venture capital (VC) firms, alongside a growing number of micro VCs[1]. These shifts in market dynamics have profound implications for startup financing and innovation creation for two key reasons. First, the increased concentration of funds among large VCs enhances their market power, which could lead to higher financing costs for startups through more VC-friendly terms. Given the established consensus in the literature that startups drive innovation, higher financing costs may place additional pressure on this growth engine. Second, greater market power may incentivize established VCs to delay their investments to later stages while maintaining the same level of returns, creating a potential funding gap for early-stage startups. While micro VCs may help fill this gap, this introduces a "funding-risk misalignment". Literature highlights that good liquidity insulates institutions from small shocks (Wagner, 2007; Khan et al., 2017), yet micro VCs, funding the riskiest stages of startups, often lack the funding capacity to support risk-taking adequately. This could reduce the likelihood of groundbreaking innovations, which usually emerge from risky early-stage endeavors that require the support of stable financing. The second aspect that captivates me is the funding gap that minority entrepreneurs face. Reports highlight the challenges faced by minority groups, such as credit-accessing difficulties Latino small business owners face (report) and the barriers women-led startups encounter in securing venture funding (report). However, these groups are among those that contribute the most to the economic growth of the United States. The third aspect that intrigues me is how technological advancements transform the way VCs screen and guide startups. Big data analysis can help VCs identify high-potential startups that might have been overlooked due to limited data points or human biases—potentially addressing minority funding gaps if discrimination is the contributing factor. Advanced AI models can aid in identifying anomalies and simulating various scenarios, such as market downturns or competitive threats, empowering VC to help startups make more informed strategic decisions.

In my current project, I tested the trend in the first aspect using Refinitiv data. I plan to use Pitchbook data to test my other hypotheses: 1) Does enhanced market power among large VCs raise startups' financing costs? 2) Does it also cause established VCs to shift investments to later stages, potentially leaving a funding gap for early-stage ventures? 3) Can the gap be filled by micro VCs? 4) If so, how do micro VCs' involvements impact startup performance? My master's thesis yields results related to the third focus. I explore technology synergy in public merger pairs and its effects on post-merger productivity. By distinguishing between complementarity and similarity, I demonstrated how synergies drive post-merger productivity, with complementarity yielding higher growth. If the results also hold between startups and established firms, advanced technology can help corporate venture capital find better partners, enhancing matching efficiency.

Together, these projects reflect my commitment to understanding the interplay between market dynamics, financing structures, technology, and diversity in fostering entrepreneurship. I appreciate your time and consideration and sincerely hope to meet you at the Entrepreneur Boot Camp this summer!

[1] Defined by Crunchbase as managing funds no larger than $50 million

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January 27, 2025

To Whom It May Concern,

I am writing to recommend **Chengmou Lei** for the NBER Research Boot Camp 2025 in Entrepreneurship and Innovation. Chengmou is currently a second-year student in our Ph.D. program, and I have had the pleasure of working with her since she joined.

Chengmou joined our program after completing her M.S. degree in Economics at EIEF in Italy, where she conducted research on the impact of mergers and acquisitions on firm productivity through the lens of technological synergy. Since the start of her doctoral studies, Chengmou has demonstrated an exceptional commitment to research. She has proactively explored innovative topics, sought out collaborators, and initiated multiple projects over the past year, including studies on labor market concentration under remote work, firms' investment strategies influenced by investor horizons, and venture capital financing. Her energy, intellectual curiosity, and drive for discovery are truly remarkable.

Given her strong research focus on entrepreneurship and innovation, I believe Chengmou would gain invaluable insights and opportunities from participating in your summer camp, especially at this early stage of her doctoral studies. This experience would not only enhance her academic growth but also further refine her contributions to the field.

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

Best regards,

Liu Yang

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