Cover Letter for

NBER Innovation Research Boot Camp 2025

Name: Xi Chen

Department: Finance Department, C.T. Bauer College of Business, University of Houston

Contact Address: 4250 Martin Luther King Blvd,

Melcher Hall Room 210J

The University of Houston

Houston, Texas 77204-6021

Email Address: xchen2@bauer.uh.edu

Phone Number: +1(979)308-1251

Name of Recommendation Letter Writer: Dr. Thomas J. Chemmanur

Xi Chen (she/her/hers)

Department of Finance, C.T. Bauer College of Business, University of Houston
LeRoy and Lucile Melcher Hall, Office 210J, Houston, TX 77204
Email: xchen2@bauer.uh.edu Phone: (979)308-1251 Website: www.xichenfinance.com

Education

University of Houston — Houston, TX, USA
- Ph.D. in Finance (in progress), C.T. Bauer College of Business — *2019 - present*

Texas A&M University — College Station, TX, USA
- M.S. in Economics, College of Arts & Sciences — *2017 - 2019*

Southwestern University of Finance and Economics (SWUFE) — Chengdu, Sichuan, China
- B.A. in Finance, School of Finance — *2013 - 2017*

Areas of Interest

Research: Corporate Finance, Corporate Innovation, Entrepreneurial Finance, and Product Market Competition

Teaching: Corporate Finance, Entrepreneurial Finance, Investments, Capital Markets, Financial Institutions, and Derivatives

Working Papers

[1] "How Do Private Firms Affect Collusion among Public Firms Driven by Common Institutional Ownership?"
- Conferences: 2024 FMA Doctoral Student Consortium, 2024 FMA Special PhD Paper Presentation, 2024 FMA, 2024 Nova Finance PhD Final Countdown, 2024 CES North American Conference Rising Star Session, 2023 FMA New Ideas Session
- Seminar: University of Houston
- Travel Grant: Chinese Economists Society

[2] "The Economics of Patent Licensing: An Empirical Analysis of the Determinants and Consequences of Patent Licensing Transactions" with Thomas Chemmanur (Boston College) and Jingxuan Zhang (University of Alberta)
- Conferences: 2025 AFA PhD Student Poster Session (scheduled), 2024 Econometric Society European Winter Meeting (scheduled)

[3] "Venture Capital and Value Creation in the Product Market: Evidence from the Nielsen Retail Scanner Data" with Jingxuan Zhang (University of Alberta)
- Conferences: 2024 ASSA, 2022 MFA, 2022 EasternFA, 2022 CICF, 2022NFA (canceled due to visa reason), 2022 FMA
- Seminar: University of Houston, Boston College

[4] "Initial Public Offerings and Product Market Dynamics: New Perspectives from the Nielsen Retail Scanner Data" with Jingxuan Zhang (University of Alberta)
*- Awards: **Runner-up for the Outstanding Doctoral Student Paper, EasternFA 2023***
- Conferences: 2023 MFA , 2023 EasternFA
- Seminar: University of Houston, Boston College

4. 2023 EasternFA, "Overlapping Ownership Along the Supply Chain", by Kayla Freeman
3. 2022 FMA, "Corporate Investments in Startups: CVC Unit vs. Direct Investment", by Sungjoung Kwon and Nomalia Manna
2. 2022 EasternFA, "Boardroom Networks and Corporate Investment", by Suyong Song and Jiawei(Brooke) Wang
1. 2021 FMA, "Political Ideology and Corporate Innovation: Evidence from the Expansion of a Local TV Network", by Yuqi Gu, Mahsa Kaviani, Lily Li, Hosein Maleki, and Connie X. Mao

Teaching Experience

Instructor:

Summer 2023	Corporate Finance (Undergraduate, 50 students) Teaching Evaluation: 4.4/5.0

Teaching Assistant:

2021 - 2024	Derivatives II: Forwards, Futures, and Swaps (Undergraduate and Graduate/MBA)
2021 - 2024	Derivatives I: Options (Undergraduate and Graduate/MBA)
2021 - 2023	Corporate Finance (Undergraduate)
2019 - 2020	Principles of Financial Management (Undergraduate)
2019	Upstream Economics (Undergraduate and Graduate/MBA)

Personal Information

Skills: Stata, Python, R, Julia, LaTeX

Others: CFA Level II Candidate

Languages: English(fluent), Chinese(native)

Hobbies: Dance (Chinese Dance and Ballet), Basketball, and Baking

References

Praveen Kumar
Interim Dean
Cullen Distinguished University Chair and Professor of Finance
C.T. Bauer College of Business, University of Houston
+1 (713)743-4600
pkumar@uh.edu

Thomas J. Chemmanur
Professor of Finance and Hillenbrand Distinguished Fellow
Carroll School of Management, Boston College
+1 (617)552-3980
chemmanu@bc.edu

Zack Liu
Associate Professor of Finance
C.T. Bauer College of Business, University of Houston
+1 (713)743-4764
zliu@bauer.uh.edu

Conference & Seminar Presentations (*by coauthor)

2025	American Finance Association (AFA) Poster Session (San Francisco, CA) (scheduled)
2024	Econometric Society European Winter Meeting (EWMES) (Palma de Majorca, Spain) (scheduled)* Financial Management Association (FMA) (Grapevine, TX) FMA Doctoral Student Consortium and Special PhD Paper Presentation (Grapevine, TX) Nova Finance PhD Final Countdown (Virtual) Chinese Economists Society North American Conference (CES)(Lewisburg, PA) Allied Social Science Association (ASSA) (San Antonio, TX)
2023	Financial Management Association (FMA) (Chicago, IL) Eastern Finance Association (EasternFA) (Asheville, NC) Midwest Finance Association (MFA)* (Chicago, IL) University of Houston
2022	Financial Management Association (FMA) (Atlanta, GA) Northern Finance Association (NFA) (Banff Centre) (*canceled due to visa reason)* China International Conference in Finance (CICF)* (Virtual) Eastern Finance Association (EasternFA) (Washington D.C.) Midwest Finance Association (MFA)* (Chicago, IL) Boston College* University of Houston
2021	University of Houston

Honors & Awards

2024	Chevron Energy Graduate Fellows Awards, University of Houston
2024	PhD Travel Grant, CES
2023	Runner-up for the Outstanding Doctoral Student Paper, EasternFA
2023	Cullen Graduate Student Success Fellowship, University of Houston
2022	Cullen Fellowship Travel Grant, University of Houston
2019 - 2024	Bauer PhD Program Fellowships, University of Houston
2018	Economics Graduates Merit Scholarship, Texas A&M University
2017	Outstanding Graduate Student Award, SWUFE
2013 - 2017	Outstanding Academic Achievement Scholarship, SWUFE
2012	Provincial Third Prize in Chinese Mathematical Olympiad

Professional Services

Ad Hoc Referee:

Journal of Banking and Finance, Journal of Business Venturing, Venture Capital

Session Chair:

- 2023 FMA, "Cross-Border Financing" session
- 2022 FMA, "Venture Capital" session

Conference Discussions:

6. 2024 CES, "The Impact of Intra-household Information Asymmetry on Labor Productivity: An Experimental Study in Cambodia", by Alex Zhou and Ruchi Mahadeshwar
5. 2023 FMA, "The Labor Market and ESG Adoption in the Mutual Fund Industry", by Natalya Bikmetova

Completed PhD Courses:

1. Courses taken at the University of Houston Finance Department:

Seminar in Financial Management

Econometrics I

Seminar in Investments

Seminar in Options and Futures

Seminar in Corporate Finance

2. Courses taken at the University of Houston Economics Department:

Applied Econometrics

Labor Economics

3. Courses taken at the University of Houston Marketing Department:

Multivariate Methods in Marketing

4. Courses taken at the Rice University Economics Department:

Microeconomics I

Computational Economics

Statement of Interest: NBER Innovation Research Boot Camp 2025

Xi Chen

My research in empirical corporate finance focuses on corporate innovation, entrepreneurial finance, and product market competition. I examine how financial intermediaries, firm structures, and market forces shape firms' innovation incentives and strategic decisions throughout their lifecycle. My work leverages novel datasets such as the ktMINE Patent Licensing Agreement Database and the Nielsen Retail Scanner Data to provide empirical insights into how firms monetize intellectual property, sustain innovation, and navigate competitive market pressures.

One of my key projects with Thomas Chemmanur (Boston College) and Jingxuan Zhang (University of Alberta) explores the economics of patent licensing transactions, a crucial yet understudied mechanism through which firms commercialize innovation. Using a large sample of licensing agreements, I investigate the determinants and consequences of these transactions. My findings reveal that licensors strategically license patents that are technologically distant from their core expertise while retaining those that align more closely with their innovation portfolios. Furthermore, patent licensing significantly enhances firm value, as evidenced by an increase in both licensors' and licensees' equity market valuation. I also document that licensors increase R&D investment and innovation productivity post-licensing, particularly when licensing fees are high, while licensees improve their innovation efficiency and introduce more new products. These results highlight the economic significance of patent licensing in fostering knowledge diffusion, corporate growth, and technological progress.

Beyond patent licensing, my broader research examines the relationship between financial markets, firm competition, and innovation. My job market paper studies how private firms disrupt common ownership-driven collusion among public firms, influencing competitive dynamics and innovation incentives. Another project investigates the role of venture capital in shaping startups' product market strategies, demonstrating how financial backing facilitates innovation and firm growth. These studies collectively contribute to our understanding of how corporate finance and innovation policy intersect.

Looking ahead, I plan to extend my research by exploring how employee incentives shape corporate innovation efficiency and by examining the impact of energy and climate policies on firms' financial performance and green innovation efforts. These projects will further inform discussions on how regulatory and financial factors influence firms' ability to innovate in response to evolving economic and policy landscapes.

I am eager to attend this boot camp to gain new insights into the economics of innovation and further develop my ability to produce high-impact research in this field. By participating, I hope to bridge the gap between academic findings and policy applications, ultimately contributing to a more comprehensive understanding of how innovation drives firm performance and economic progress.

BOSTON COLLEGE

Department of Finance, 440 Fulton Hall
The Wallace E. Carroll School of Management
Chestnut Hill, MA 02467

Brett Maranjian
National Bureau of Economic Research
1050 Massachusetts Avenue
Cambridge, MA 02138, US

February 6, 2025

Dear Brett,

I am writing to recommend one of the doctoral students with whom I am working with, Xi Chen, for the NBER Innovation Research Boot Camp 2025. Xi is a finance Ph.D. candidate at the University of Houston, and I have had the opportunity to work closely with her over the past two years. I first met Xi when she visited Boston College in Spring 2023, where she actively participated in my Advanced Corporate Finance course and also engaged with me in insightful discussions on corporate finance and innovation during our frequent meetings on research topics. Since then, we have collaborated on a research project investigating the economics of patent, which has given me firsthand insight into her strong research skills and dedication to doing research in the innovation area. Xi visited Boston College again last summer to continue working with me on a research paper. Xi's work with me has already resulted in a completed working paper, which I discuss below in more detail. We are currently embarking on a second research paper, also in the area of corporate innovation.

Our joint working paper that we have recently completed (also coauthored with Jingxuan Zhang, a former doctoral student of mine who has now taken up a position as tenure-track Assistant Professor of Finance at the University of Alberta), is titled, **"The Economics of Patent Licensing: An Empirical Analysis of the Determinants and Consequences of Patent Licensing Transactions."** In this paper, we use a large licensor-licensee dataset from the ktMINE Patent Licensing Agreement Database. We examine why firms choose to license patents, the factors influencing licensors' choice of licensee firms, their choice of patents to license versus to sell versus to retain and build new products around, and the economic consequences of licensing transactions for licensors and licensees. Our findings reveal that patent licensing transactions causally enhance firm values for both licensor and licensee firms (and are thus efficiency enhancing), increases R&D investments, and promotes innovation productivity for licensors. To the best of my knowledge, this is the first paper in the literature to analyze the above issues. This paper was presented at last *American Finance Association* annual meetings at the doctoral students' session.

Beyond this project, Xi's broader research agenda aligns closely with the themes of the NBER Innovation Research Boot Camp. Her solo research work explores how financial intermediaries and market

structures shape firms' innovation strategies. In addition to her research on patent licensing, she also has a paper exploring the role of venture capital on startup firms' growth and innovation (joint with Jingxuan Zhang). All her papers have been accepted and presented at good finance conferences.

In summary, by knowing her working papers and talking to her, I can say that Xi is a smart scholar who has the potential to benefit greatly from the NBER Innovation Research Boot Camp program, since her research interest is highly relevant to entrepreneurial finance and innovation. Therefore, I strongly recommend her for participation in the NBER Innovation Research Boot Camp. If you have any questions about Xi, please feel free to call (Phone number: (617)552-3980) or email me (chemmanu@bc.edu).

Sincerely



Thomas J. Chemmanur
Professor of Finance
Email: chemmanu@bc.edu