

Boyan Han

Email: Boyan.Han@colorado.edu | Phone: +1 (303) 668-9762
Website: boyanhan.com | LinkedIn: [linkedin.com/in/boyanhan](https://www.linkedin.com/in/boyanhan)

EDUCATION

University of Colorado Boulder, Boulder, CO · <i>Ph.D. in Finance</i>	Expected 2027
New York University, New York, NY · <i>M.S. in Financial Engineering</i>	2021
Nankai University, Tianjin, China · <i>B.S. in Finance</i>	2019

RESEARCH INTERESTS

Empirical Corporate Finance, Entrepreneurship, Innovation, Labor

TEACHING INTERESTS

Derivatives, Investments, Portfolio Management, Financial Markets, Quantitative Finance, Corporate Finance, FinTech, Textual Analysis, AI Applications in Finance

RESEARCH

JOB MARKET PAPER

Venture Capital and the Commercialization of Innovation

Young innovative companies decide which innovations to pursue under technological and market uncertainty while relying on venture capital for financing. This paper examines a new transmission channel from venture capital markets to startup innovation: VC-backed companies adjust the direction of their innovation when their VC investors face tighter fundraising constraints. First, I document that companies backed by constrained VCs are less likely to receive follow-on financing, and they complete fewer financing rounds. Beyond this financing response, I find that these companies reorient their innovation toward commercialization and away from frontier exploration. To quantify the commercialization of innovation, I construct a novel measure, the product-linked patent share, using company disclosures that directly link specific patents to marketed products. The product-linked patent share increases by 0.7 to 2.8 percentage points in response to the financing constraints, with no corresponding change in total patenting. The shift is followed by lower citation impact and evidence of less science-intensive invention. Moreover, these companies reach the IPO stage at a 51.2% lower rate than comparison companies. Overall, these findings suggest that greater product orientation need not indicate stronger innovative capacity. It can reflect portfolio companies' adjustment to their VC investors' fundraising constraints.

WORK IN PROGRESS

Acquisitions and the Fate of Startup Innovation, *with Katie Moon (KAIST) and Guanqun Zhou (NTU)*

Acquisitions may provide startups with the complementary assets needed to commercialize innovation, but they may also redirect or discontinue technologies that compete with an acquirer's existing products. We construct a novel firm-product-patent panel from virtual patent marking disclosures and link it to patent assignments, M&A transactions, inventor histories, and SEC filings. By tracing whether patents originating in acquired startups are subsequently linked to acquirers' marketed products, we examine how technological and product-market overlap shapes post-acquisition integration. We also study inventor retention and subsequent innovation. Together, these outcomes distinguish commercialization through integration from the redirection or discontinuation of potentially competing technologies.

Inventor Moves and Disproportionate Development of Industries

This paper examines whether local industrial specialization redirects the inventive careers of mobile inventors and thereby reinforces the geographic concentration of innovation. I reconstruct inventor career histories from U.S. patent records and track moves across Core-Based Statistical Areas. After relocating, inventors are more likely to direct their subsequent work toward locally dominant industries, consistent with a magnetic effect of local specialization. Regions with larger inventor inflows subsequently generate more patents and citations, with gains concentrated in their leading industries; inventors with prior cross-industry experience appear to generate larger spillovers. The project also uses changes in states' application of the Inevitable Disclosure Doctrine to examine how restrictions on worker mobility affect local inventor flows and innovation. The results suggest that inventor mobility can amplify, rather than offset, existing regional innovative advantages.

TEACHING

INSTRUCTOR OF RECORD | *University of Colorado Boulder*

FNCE 4040: Financial Derivatives (Undergraduate Core) Summer 2025

– Instructor Rating: 4.77/5

FNCE 4040: Financial Derivatives (Undergraduate Core) Summer 2024

– Instructor Rating: 4.91/5 · **Winner of the Summer 2024 Teaching Award**

TEACHING ASSISTANT EXPERIENCE

University of Colorado Boulder

MSAX 6220: Investment and Portfolio Management (MBA Core) Fall 2025

MSBX 6290: Textual Analysis in Business (MBA Elective) Spring 2022–2026

FNCE 4040: Financial Derivatives (Undergraduate Core) Spring 2024

MSBC 5031: Quantitative Methods (Master's Core) Fall 2023

New York University

FRE-GY 6023: Financial Economics (Master's Core) Fall 2020

INDIVIDUAL STUDENT MENTORSHIP | *University of Colorado Boulder*

FNCE 4040: Financial Derivatives (Undergraduate Core) Spring 2023

FELLOWSHIPS, AWARDS AND HONORS

2024	Summer 2024 Teaching Award, CU Boulder
2022 & 2024	Gerald Hart Doctoral Research Summer Fellowship, CU Boulder
2021–Present	Full Doctoral Scholarship, Leeds School of Business, CU Boulder
2021	Outstanding Academic Achievement Award, Finance and Risk Engineering Department, NYU
2016	Outstanding Student Award, Nankai University

SKILLS

Programming & Data Analysis: R, Python, Stata, LaTeX

Natural Language Processing: Text mining, data cleaning, embedding methods

Selected AI Credentials: AI Literacy Foundations Digital Badge, Google AI Professional Certificate

Languages: English (Fluent), Mandarin (Native)

Sport: Certified Second-Level National Badminton Athlete, China

REFERENCES

Nathalie Moyen (Dissertation Chair)

Finance Professor
W.W. Reynolds Capital Markets Program Chair
Leeds School of Business, CU Boulder
nathalie.moyen@colorado.edu

David Ikenberry

Finance Professor
Leeds School of Business, CU Boulder
david.ikenberry@colorado.edu

Shaun Davies

Finance Associate Professor
Faculty Director of the Burrige Center for Finance
Leeds School of Business, CU Boulder
shaun.davies@colorado.edu

S. Katie Moon

Finance Associate Professor
College of Business, KAIST
katie.moon@kaist.ac.kr