Lu Yi

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RESEARCH INTERESTS Private equity, venture capital, pension economics, financial econometrics

PERMANENT RESIDENCE Permanent Resident of Canada

EDUCATION

University of North Carolina at Chapel Hill, Chapel Hill, United States, 2018-present Ph.D. Student, Department of Economics (expected May 2024)

Simon Fraser University, Burnaby, Canada, 2015–2018

MSc, Department of Statistics and Actuarial Science

- Master's degree in science, major in actuarial science
- Supervisors: Barbara Sanders and Jean-François Bégin
- Thesis title: Quantifying Inter-generational Equity under Different Target Benefit Plan Designs

Simon Fraser University, Burnaby, Canada, 2012-2015

BSc, Department of Statistics and Actuarial Science

Bachelor's degree in science, major in actuarial science

PUBLICATIONS

Publications in refereed journals:

"Redistribution in Modern Occupational Pension Plans: Hidden Versus Explicit Risk Transactions."
With Barbara Sanders and Jean-Francois Bégin. *Journal of Pension Economics and Finance*, 21(2), 260-293.

WORKING PAPERS AND WORK-IN-PROGRESS Job Market Paper: "The Evolution of Equity Ownership: Declining IPOs, the Rise of Private Markets, and Economic Dynamism"

Abstract: Since the early 2000s, many advanced economies have seen a decline in initial public offerings (IPOs) of stock and, consequently, the count of publicly-traded companies. The drop in IPOs has raised pressing questions: Is there a decline in transformative new firms and has our financial system become less supportive of them? A primary barrier to understanding these patterns is the scarcity of data on private firms. To bridge this gap, I compile a comprehensive dataset tracking the financial characteristics and ownership structure for both public and private firms in the United Kingdom (UK) throughout their lifespan. I find that a decreasing population of young firms, a trend underscored in economic dynamism literature, accounts for around 25% of the IPO reduction in the UK since its 2007 peak. Yet, this is just one facet of a broader trend. I confirm anecdotal evidence that an increasing proportion of high-growth young firms are turning to private external funding sources, such as venture capital and other private equity (PE) funds. This implies that the outlook for transformational startups is not as pessimistic as the declining trend in IPOs suggests. Furthermore, I highlight the pronounced role of mergers and acquisitions (M&A), particularly an uptick in cross-border M&A as an ownership transition for private firms. Finally, I show that this more complex view of how equity ownership evolves is integral to understanding trends in economic dynamism.

- "How Do Private Equity Firms Create Value?" with Gregory Brown, *UNC Institute for Private Capital* working paper, 2023.
- "Performance Analysis and Attribution with Alternative Investments" with Matteo Binfare, Gregory Brown, Andra Ghent, Wendy Hu, Christian Lundblad, Richard Maxwell, and Shawn Munday.
- "Employment Dynamics at Venture-Backed Companies Between 1990 and 2020." with Gregory Brown, Michael Chow, and David Fisher. UNC *Kenan Institute of Private Enterprise* working paper.

- "Estimating Undetected COVID-19 Infections" with Gregory Brown and Eric Ghysels, UNC *Kenan Institute of Private Enterprise* working paper.
- "U.S. Monetary Policy and the Deviations from Covered Interest Parity" with Anusha Chari, Christian Lundblad, and Karlye Stedman, work in progress (2023).
- "Quantifying Inter-generational Equity under Different Target Benefit Plan Designs. Master's thesis, Simon Fraser University master's thesis, (2018).

PRESENTATIONS (†denotes refereed conference presentations by a coauthor.)

"Redistribution in Collective Pension Arrangements Without a Sponsor Guarantee: Hidden Versus Explicit Risk Transactions" with Barbara Sanders and Jean-Françoise Bégin.

- The 23rd International Congress on Insurance: Mathematics and Economics[†], Munich, Germany, July 10, 2019
- The 53rd Annual Conference of the Canadian Economics Association[†], Banff, Canada, May 31, 2019.
- The 17th International Conference on Pension, Insurance and Saving[†], Paris, France, May 27, 2019
- Quantact Workshop on Inter-generational Equity in a pension Context[†], Montréal, Canada, March 1, 2019 (invited)

"Valuing Inter-generational Equity in Target Benefit Plans using Embedded Options Approach" with Barbara Sanders and Jean-Francoise Bégin.

• The 46th Annual Meeting of the Statistical Society of Canada, Montréal, Canada, June 5, 2018

"Quantifying Inter-generational Equity in Canadian Target Benefit Plans under the Value-Based ALM Framework" with Barbara Sanders.

The 52nd Actuarial Research Conference, Atlanta, United States, July 26, 2017

PROFESSIONAL EXPERIENCES

Institute for Private Capital, Chapel Hill, United States

Research Assistant, since May 2021

- Employment Dynamics at VC-Backed Companies in the United States: Analyzed employment data and performed imputation analysis for a project conducted in collaboration with the National Venture Capital Association to estimate the total employment generated by VC-backed companies in the US from 1990 to 2020. Website: https://nvca.org/employment-dynamics/.
- **Deal-level Attribution Analysis for Private Equity:** Developed a methodology to estimate the contributions to financial performance by private equity-owned companies. The findings were featured in a white paper by the Institute for Private Capital, which addressed performance analysis and attribution within alternative investments. Website: link to the white paper.
- Senior Housing vs. Aging-In-Place: Analyzed the residential choice behavior of the senior population across various US regions. Overlaying maps of senior care supply data identified areas with inadequate senior care facilities, aiding investment decisions and policymaking.

Kenan Institute of Private Enterprise, Chapel Hill, United States

Research Assistant, June 2020-May 2021

Collected and analyzed data for the COVID-19 Decision Dashboard, a 'real-time' research project commissioned by the Governor to advise on North Carolina's response to the pandemic, focusing on economic activity and business operations. Constructed and estimated a time-varying Markov model to forecast COVID-19 cases in North Carolina.

Website: https://kenaninstitute.unc.edu/dashboard/reopening-amid-covid-19/.

Simon Fraser University, Burnaby, Canada, 2015–2018

Research Assistant, Department of Statistics and Actuarial Science

• Investigated intergenerational equity in the Canadian implementation of risk-sharing pension plans using a Value-Based Asset Liability Management framework. Implemented a web application available at: https://retirement.shinyapps.io/targetbenefitplan/.

Moody's Analytics, Toronto, Canada, 2016-2017

Co-op Actuarial Programmer, Annuities Group

 Developed and implemented an approximation method for projecting a joint life variable annuity with a spousal continuation option. Programmed new features in the annuity module using C++ to fulfill evolving client requirements.

TEACHING EXPERIENCES

University of North Carolina at Chapel Hill, Chapel Hill, United States

Teaching Assistant, Kenan-Flagler Business School, Fall 2022 and Fall 2023

MBA 792 - Investments (EMBA)

University of North Carolina at Chapel Hill, Chapel Hill, United States

Recitation Instructor/Teaching Assistant, Department of Economics, Fall 2019 - Fall 2021

- Econ 101 Principles of Economics
- Econ 400 Introduction to Statistics and Econometrics
- Econ 486 Gender and Economics
- Econ 490 Exploring the Economics of Global Pandemics

Simon Fraser University, Burnaby, Canada, Fall 2015 – Spring 2018

Teaching Assistant, Department of Statistics and Actuarial Science

- ACMA 301 Long-Term Actuarial Mathematics I
- ACMA 401 Long-Term Actuarial Mathematics II
- Statistics Workshop

AWARDS

- Vijay Bhagavan Award for Outstanding Economics 101 Teaching Assistant, 2020
- Netspar MS Thesis Award, Network for Studies on Pensions, Aging & Retirement, 2019
- Undergraduate Open Scholarship, Simon Fraser University, 4 times, 2013-2015
- Statistics and Actuarial Science Endowment Award, Simon Fraser University, 2014
- President's/Dean's Honor Roll, Simon Fraser University, 4 times, 2013-2014

SCHOLARSHIPS

- Postgraduate Scholarships (PGS-D3) from NSERC, 2019–2022
- Doctoral Merit Assistantship from University of North Carolina at Chapel Hill, 2018
- GSS Professional Development Grant from Simon Fraser University, 2018
- Graduate Fellowship from Simon Fraser University, 2017-2018
- Chair's Travel Grant from Simon Fraser University, 2017–2018
- Entrance scholarship from Simon Fraser University, 2012

TECHNICAL SKILLS

- Programming: Python, Stata, C++, Matlab, R, Numpy, Pandas, PyTorch, VBA
- Databases: BvD Orbis, Zephyr, S&P Compustat, SDC Platinum, Capital IQ, CRSP, Stepstone, Burgiss, Preqin
- Applications: Bloomberg, WRDS, Github, LaTeX, Visual Studio, Dynare

LANGUAGES

- Mandarin Chinese (native)
- English (fluent)

REFERENCES

Prof. Anusha Chari (co-chair)

Professor of Economics and Finance Department of Economics & Kenan-Flagler Business School UNC-Chapel Hill

Prof. Christian T. Lundblad

Richard Levin Distinguished Professor of Finance Kenan-Flagler Business School UNC-Chapel Hill

Prof. Gregory W. Brown (co-chair)

Weatherspoon Distinguished Professor of Finance Kenan-Flagler Business School UNC-Chapel Hill

Prof. Boone Turchi

Associate Professor of Economics Department of Economics UNC-Chapel Hill