DANIEL SMITH

Boston College, Carroll School of Management
(781) · 308 · 2441 ◇ smithafe@bc.edu ◇ www.danielsmithfinance.com

EDUCATION

Boston College Carroll School of Management *2020-2025*
Ph.D. Candidate in Finance

MIT Sloan School Of Management *2018-2019*
Master of Finance
Awards: Dean's Master of Finance Fellowship

Northeastern University *2009-2014*
Bachelor of Science in Economics and Mathematics
Honors: *cum laude*

RESEARCH INTERESTS

Empirical Asset Pricing, Political Economy, and Municipal Finance

WORKING PAPERS

Electoral Entrenchment and Municipal Bond Prices
Job Market Paper

Abstract: Political parties often initiate policies designed to entrench themselves and limit the power of the opposition. I show that municipal bond investors value electoral entrenchment. An increase in electoral entrenchment lowers municipal bond spreads, regardless of which party benefits. The evidence indicates that rising agency frictions between constituents and their representatives drive the effect, particularly in states with substantial pension underfunding. Overall, my results suggest that a reduction in politicians' responsiveness to the will of the voters, caused by electoral entrenchment, allows politicians to make unpopular public finance decisions that bondholders value.

Pension Risk and State Borrowing Costs

Abstract: I show that increased investment risk-taking by US state public pensions is reflected in higher borrowing costs for the state. I measure borrowing costs as municipal bond tax-adjusted spreads and credit default swap spreads. I use the pension funds' 5 % value at risk as a measure for risk. A one standard deviation increase in the value at risk of a state's pension system results in a 4.6 basis point increase in the municipal bond tax adjusted spread and a 9.5 basis point increase in the CDS spread. The relationship I identify is robust and statistically significant, controlling for the funding level of the plans, the state's revenue and expenses, and revaluing the funds' liabilities to reflect finance principles better. Additionally, within municipal bonds, I demonstrate an interaction between the plan's funding status and value at risk such that the worst a pension system is funded, the more risk-taking matters for the total effect on the tax-adjusted spread.

PUBLICATIONS

How Much Can Collective Defined Contribution Plans Increase Risk-Sharing?
With Deborah Lucas
Journal of Investment Management Vol. 18, No. 4 (2020): 1-27.

Abstract: Collective Defined Contribution (CDC) plans have been suggested as an attractive and sustainable alternative to public sector DB plans. A CDC plan is a hybrid structure, designed to provide more predictable retirement benefits than a traditional DC plan while operating at the lower cost of a DB plan. It does this by sharing investment risk across worker cohorts and centralizing asset management. We develop a model of an unsubsidized CDC plan and use it to characterize the risk-sharing rules and investment policies that maximize a "scheduled benefit" for retirees that is almost always achieved or exceeded. We compare the outcomes under the CDC system with those from an otherwise similar options-augmented DC model, where participants have access to self-financing strategies that involve trading in one-year put and call options. The ability to effectively trade long-dated options in the CDC framework delivers a somewhat higher scheduled benefit than can be achieved by self-insuring in an options-augmented DC plan. However, under current contribution policies, the scheduled benefit in the CDC plan falls short of what most would consider an adequate retirement income.

WORKS IN PROGRESS

Local Fiscal Policy
With Nancy Xu

How Sustainable Are Public Pension Plans? A Stochastic Analysis of Policy Alternatives
With Deborah Lucas, Byron Lutz, Louise Sheiner

Abstract: How concerned should policymakers be over public pension underfunding, and which remedies offer the best path forward? In this paper, we argue for using stochastic analysis of pension plan cash-flows over time to address these questions. We construct a detailed Monte Carlo simulation of 40 state and local pension plans using plan-provided data for 2017 and 2022. Compared to a stock measure of the funding level—the ratio of assets to reported liabilities- we can quantify the timing and severity of distress events. Contrasting our results with a deterministic cash-flow analysis, we confirm previous research that most public pensions are sustainable on a cash-flow basis on average. Still, because our analysis allows us to construct the entire distribution of outcomes, we show that the likelihood of entering a distress scenario is still meaningful for many plans. Finally, we use our model to test out some commonly proposed remedies to reduce the probability of default.

PRESENTATIONS

Electoral Entrenchment and Municipal Bond Prices

MFA 2025 (scheduled), Boston College PhD Seminar 2024, Boston College Faculty Seminar 2024, 1st Boston College Eagle Finance Conference 2024 PhD Poster Session

Pension Risk and State Borrowing Costs

Inter-Finance PhD Seminar, Boston College PhD Seminar 2023

TEACHING EXPERIENCE

- Teaching Assistant, Money and Capital Markets (Undergraduate), Boston College *2024*
- Teaching Assistant, Investments (Undergraduate), Boston College *2022-2024*
- Teaching Assistant, Fixed Income (Masters), MIT *2019*

REFEREE

· Journal of Banking and Finance

PROFESSIONAL AND RESEARCH EXPERIENCE

MIT Golub Center For Finance and Policy *2019-2020*
Research Associate

Co-authored an academic research article with Professor Deborah Lucas on retirement finance. Constructed a complex retirement finance model that can address the intricacies of risk-sharing across cohorts. Engaged at all levels of the research process to produce both academic and policy-oriented research in finance.

Federal Reserve Bank of Boston *2014-2018*
Senior Research Assistant

Developed and presented material to the Federal Reserve Bank of Boston president to provide him with relevant information for an FOMC meeting. Utilized advanced programming techniques such as parallel programming to simulate large-scale models of bank networks. Developed machine learning models to examine trends in consumer finance. Used empirical methods to assist with the implementation of Comprehensive Capital Analysis and Review (CCAR). Coded and performed sensitivity analysis on components of the Dodd-Frank Act Stress Test Model (DFAST), which were put into production.

REFERENCES

Philip Strahan (chair)

Professor and John L. Collins, S.J. Chair
Boston College Carroll School of Management
Fulton Hall 324B, 140 Commonwealth Avenue, Chestnut Hill, Massachusetts 02467
Email: philip.strahan.1@bc.edu
Phone: 617-552-6430

Deborah Lucas

Sloan Distinguished Professor of Finance
Director of the MIT Golub Center for Finance and Policy
MIT Sloan School of Management
Building E62-640, 100 Main St, Cambridge, Massachusetts 02142
Email: dlucas@mit.edu
Phone: 617-715-4816

Rui Albuquerque

Professor
Boston College Carroll School of Management
Fulton Hall 560B, 140 Commonwealth Avenue, Chestnut Hill, Massachusetts 02467
Email: rui.albuquerque@bc.edu
Phone: 617-552-2825

Tuomas Tomunen

Assistant Professor
Boston College Carroll School of Management
Fulton Hall, 140 Commonwealth Avenue, Chestnut Hill, Massachusetts 02467
Email: tuomas.tomunen@bc.edu
Phone: 929-422-9350

ADDITIONAL INFORMATION

Programming languages: R, Python, MATLAB, SQL, Stata, Mathematica
Software: Unix, LaTeX, Git, Slurm
Citizenship: U.S.A.