

Zhuolu Gao

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Current Employment

Postdoctoral Researcher 2025-
Frankfurt School of Finance & Management

Research Interests

Financial Intermediation, Credit Risk Modeling, Empirical Corporate Finance

Education

Ph.D. in Finance 2025
Copenhagen Business School

MSc in Advanced Economics and Finance 2020
Copenhagen Business School

BSc in Finance 2015
Southeast University

Working Papers

Why Do Firms Pay More for Bank Loans? The Role of Renegotiation [link](#)

Firms borrowing from both banks and the corporate bond market pay a substantial premium on bank loans, raising questions about firms' bargaining power and banks' competition. In this paper, I show that a large portion of this premium compensates banks for facilitating out-of-court restructurings. I estimate the loan premium and use a 2014 U.S. court ruling, which impeded out-of-court restructurings, as a natural experiment. Following the ruling, affected firms experienced an 80–90 bps reduction in the loan premium, due to reduced restructuring opportunities and a diminished potential to avoid bankruptcy costs. These findings suggest that the renegotiation flexibility provided by banks is a key driver of the loan premium, highlighting the unique value that bank lending offers beyond the capital market.

Award: The Brattle Group Ph.D. Candidate Awards For Outstanding Research

Presented at: NFN PhD Workshop 2024, FIRS 2024, Tri-City Day-Ahead Workshop 2024, SFI PhD Workshop, BIGFI Research Retreat, NFN Young Scholar Workshop, AFA poster 2025, WFA 2025

Bank Equity Risk, coauthored with Jens Dick-Nielsen and David Lando [link](#)

Financial regulation has led banks to increase their equity ratios. Yet several studies find that this has not led to a decrease in bank equity risk. We show theoretically, that holding less capital in excess of the minimum capital requirement can outweigh the risk-reducing effect of increased total capitalization on equity. Using times series data and a natural deregulation experiment we find that excess capitalization is a significant determinant of equity risk, and can explain why bank equity risk has not become lower after the Global Financial Crisis. Lower leverage has, however, reduced the cost of bank debt.

Presented at: Aalto, Aarhus University*, Bloomberg*, Copenhagen Business School, China International Conference in Finance 2023, Danish Finance Institute*, Deloitte*, European Banking Authority*, European Central Bank*, EFA 2023*, New York Fed*, Norges Bank, Swedish House of Finance, University of Zurich, Bank of England**

Forgiven but Not Forgotten: Emerging Market Credit Spreads Following Debt Relief, coauthored with Mikkel Vittrup Hauerberg, David Lando, and Aleksander Koldborg Tetzlaff [link](#)

We examine yield spreads of government debt issues from countries that have received large-scale debt relief through the Heavily Indebted Poor Countries (HIPC) program and the Multilateral Debt Relief Initiative

(MDRI). Using data from more than 3,000 bond issues and after controlling for macroeconomic, political, and geographical factors, we find that HIPC governments pay an average yield spread premium of close to 1.5% on USD-denominated and non-USD-denominated bonds compared to similar countries which have not received relief. Markets seem to rationally anticipate a deterioration in the credit quality of relieved countries.

Presented at: Copenhagen Business School, BI Oslo, ESADE Business School*, EFA 2020 (online)**

(by coauthors, † scheduled)*

Teaching

Financial Intermediation (Masters): 2021, 2022, 2024

Quantitative Methods (Masters): 2021, 2022, 2023, 2024

Master Thesis Supervision: 2024, 2025

Other Experiences

China Construction Bank

Languages

Mandarin (Native), English (Fluent)

Programming

R, Python, MATLAB, Bloomberg, SAS

Scholarships

Danish Government PhD Scholarship	2020
FIRS PhD Travel Grant	2024
EFA PhD Travel Grant	2024
AFA PhD Travel Grant	2024
The Brattle Group Ph.D. Candidate Awards For Outstanding Research	2025