Which Banks are (Over) Levered? Insights from Shadow Banks and Uninsured Leverage

Erica Jiang, Gregor Matvos, Tomasz Piskorski & Amit Seru

SHARE

WORKING PAPER 26903

DOI 10.3386/w26903

ISSUE DATE March 2020

REVISION DATE June 2024

We examine why banks maintain such high financial leverage, with debt financing accounting for about 90% of banks' assets. To answer this question, we use uniquely assembled data on capital structure decisions of shadow banks that on the asset side conduct very similar business to banks. The shadow bank data provides us with a window into "free market" financing choices of financial intermediaries that unlike banks are lightly regulated and do not have access to insured deposit funding. We demonstrate that shadow banks employ twice the amount of equity capital compared to equivalent banks, with the most significant disparity observed between smaller and mid-size banks. Uninsured leverage, defined as uninsured debt funding to assets, increases with size for both banks and shadow banks while cost of debt declines with size. We rationalize these facts within a calibrated quantitative equilibrium model of intermediation. Our analysis reveals that the primary driver of high leverage among smaller and mid-size banks is their access to insured deposit funding. In the absence of deposit insurance, these banks would maintain a capitalization level at least 25% higher in relative terms than observed in the data. Conversely, deposit insurance plays a comparatively minor role in influencing the financial leverage of the largest banks, where the predominant factor is their capacity to generate money-like deposits. These results suggest a significant scope for the increase of

capitalization of smaller and mid-size banks to align their capital structures with their private market counterparts. The aggregate consequences of such increase would be limited, because of reallocation of lending activity from smaller to large banks and to shadow banks.

Download a PDF

Information on access

Acknowledgements and Disclosures

Citation and Citation Data

Other Versions

Related

TOPICS
Financial Economics
Financial Institutions
Industrial Organization
Regulatory Economics

PROGRAMS
Corporate Finance
Monetary Economics

WORKING GROUPS
Risks of Financial Institutions
Household Finance

Mentioned in the News

Mortgage Rates Today - Shadow bank funding and mortgage market competition

APRIL 5, 2021
SOURCE: Fintech Zoom

Read the research here.

The Stability of Safe Asset Production

NOVEMBER 9, 2020
SOURCE: MarketScreener

Read the research here.

View All →

More from the NBER

In addition to working papers, the NBER disseminates affiliates' latest findings through a range of free periodicals—the NBER Reporter, the NBER Digest, the Bulletin on Health, the Bulletin on the Economics of Alzheimer's, and the Bulletin on Entrepreneurship—as well as research spotlights, lectures, and panel videos.

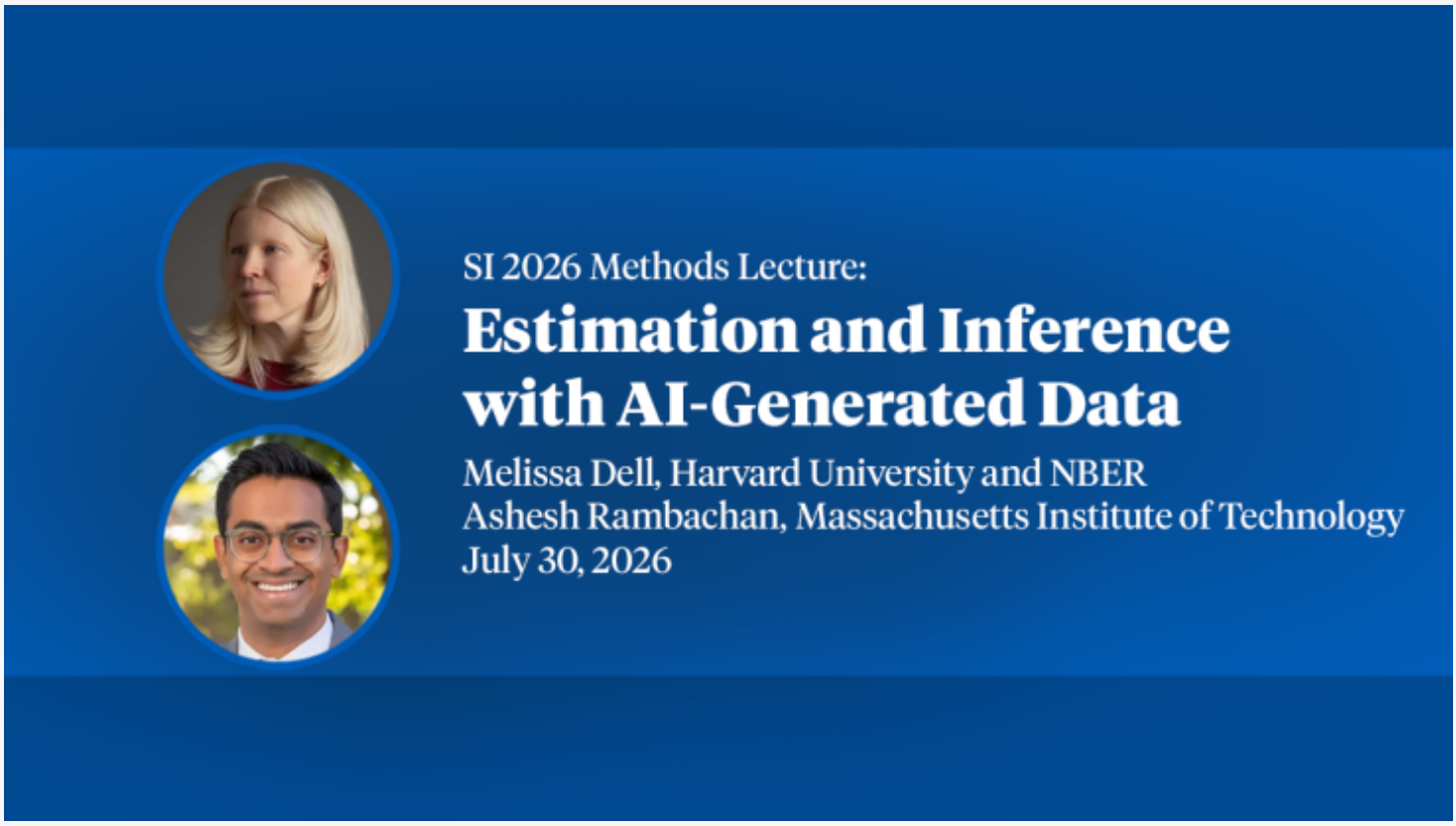


2026, 18th Annual Feldstein Lecture, Mark Duggan, "Social Security Reform in an Era of Fiscal Deficits"

FELDSTEIN LECTURE

PRESENTER: MARK DUGGAN

Mark Duggan, who is currently the Wayne and Jodi Cooperman Professor of Economics at Stanford University and will soon...



2026, Methods Lecture, Melissa Dell and Ashesh Rambachan, "Estimation and Inference with AI-Generated Data"

METHODS LECTURES

PRESENTERS: MELISSA DELL & ASHESH RAMBACHAN

Research Associate Melissa Dell of Harvard University and Ashesh Rambachan of MIT delivered the 2026 Methods...



2026, SI Household Finance, Paul Goldsmith-Pinkham, "Using AI in Household Finance Research: A Practical Guide"

VIDEO

PRESENTER: PAUL GOLDSMITH-PINKHAM

Supported by the Vanguard Group

National Bureau of Economic Research

Contact Us
1050 Massachusetts Avenue
Cambridge, MA 02138
617-868-3900
info@nber.org
webaccessibility@nber.org

FOLLOW

© 2026 NATIONAL BUREAU OF ECONOMIC RESEARCH. ALL RIGHTS RESERVED.