

[Working Papers](#)

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

Download Citation

Other Versions

Related

TOPICS

- Financial Economics
- Financial Institutions
- Industrial Organization
- Regulatory Economics

PROGRAMS

- Corporate Finance
- Monetary Economics

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](#), and the [Bulletin on Entrepreneurship](#) — as well as online [conference reports](#), [video lectures](#), and [interviews](#).



Martin Feldstein Lecture, Summer Institute 2025
The Fiscal Future

N. Gregory Mankiw, Harvard University and NBER
July 10, 2025

2025, 17th Annual Feldstein Lecture, N. Gregory Mankiw, "The Fiscal Future"

FELDSTEIN LECTURE

PRESENTER: [N. GREGORY MANKIW](#)

N. Gregory Mankiw, Robert M. Beren Professor of Economics at Harvard University, presented the 2025 Martin Feldstein...



Methods Lecture, Summer Institute 2025
**Uncovering Causal Mechanisms:
Mediation Analysis and
Surrogate Indices**

Raj Chetty, Harvard University and NBER
Kosuke Imai, Harvard University
July 24, 2025



2025, Methods Lecture, Raj Chetty and Kosuke Imai, "Uncovering Causal Mechanisms: Mediation Analysis and Surrogate Indices"

PRESENTERS: [RAJ CHETTY](#) & [KOSUKE IMAI](#)

SlidesBackground materials on mediationImai, Kosuke, Dustin Tingley, and Teppei Yamamoto. (2013). "Experimental Designs...

A blue rectangular poster with three circular headshots of panelists on the left. The text on the right reads: "International Trade and Macroeconomics, Summer Institute 2025", "Panel on The Future of the Global Economy", "Oleg Itskhoki, Harvard University and NBER", "Paul Krugman, City University of New York and NBER", "Linda Tesar, University of Michigan and NBER", and "July 8, 2025".

International Trade and Macroeconomics, Summer Institute 2025
Panel on The Future of the Global Economy
Oleg Itskhoki, Harvard University and NBER
Paul Krugman, City University of New York and NBER
Linda Tesar, University of Michigan and NBER
July 8, 2025

2025 International Trade and Macroeconomics, "Panel on The Future of the Global Economy"

PANEL DISCUSSION

PRESENTERS: [OLEG ITSKHOKI](#), [PAUL R. KRUGMAN](#) & [LINDA TESAR](#)

Supported by the Alfred P. Sloan Foundation grant #G-2023-19633, the Lynde and Harry Bradley Foundation grant #20251294...

National Bureau of Economic Research

[Contact Us](#)

1050 Massachusetts Avenue

Cambridge, MA 02138

[617-868-3900](tel:617-868-3900)

info@nber.org

webaccessibility@nber.org

[HOMEPAGE](#)

[Accessibility Policy](#)

[Diversity Policy](#)

[Privacy Policy](#)

FOLLOW



© 2025 NATIONAL BUREAU OF ECONOMIC RESEARCH. ALL RIGHTS RESERVED.