Pensions, Bank Regulation and Financial Markets

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in Honour of Sushil Wadhwani

Financial Markets Group, London School of Economics
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Pensions, Bank Regulation and Financial Markets

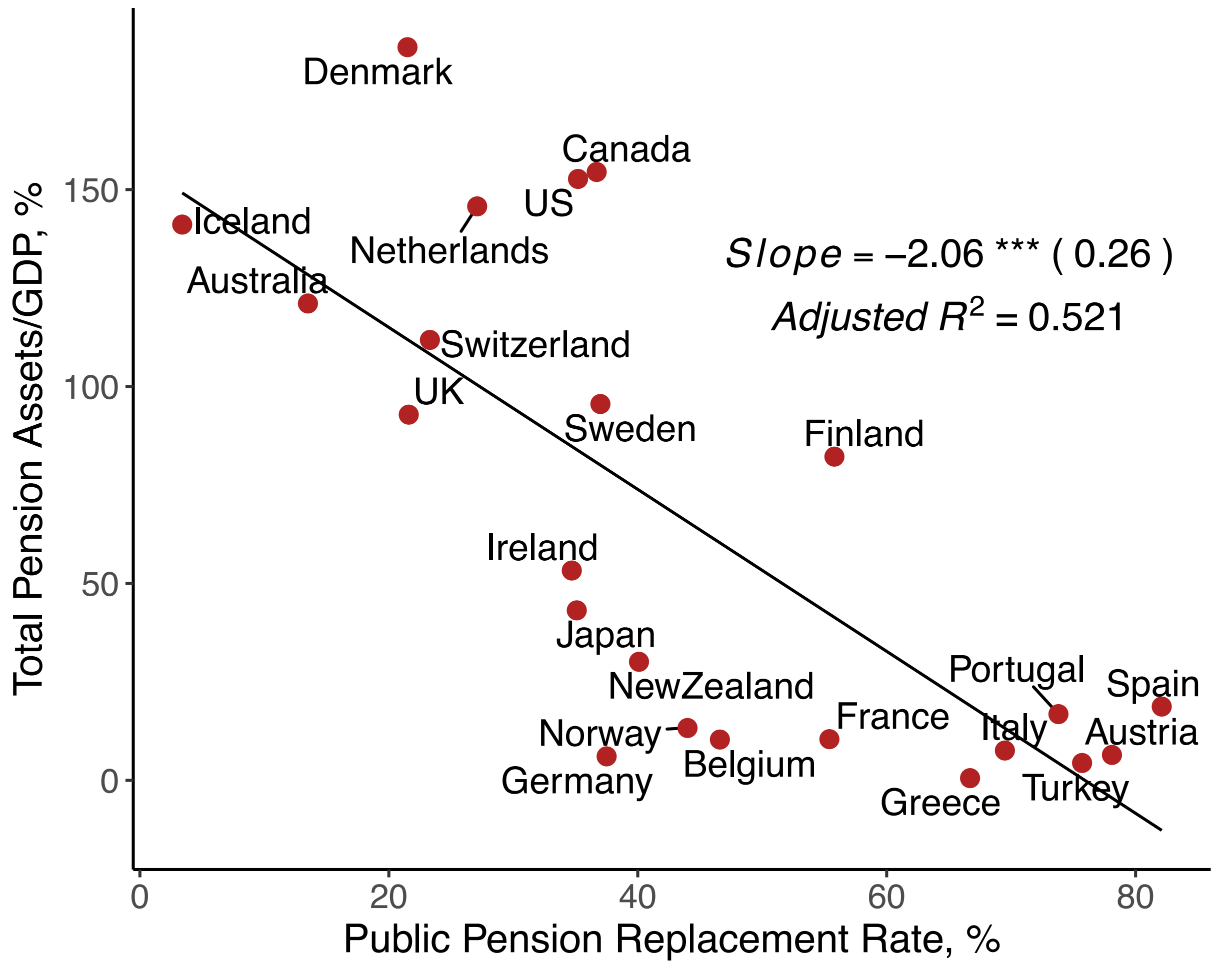
More stringent bank regulation combined with increasing retirement assets is driving the growth of market-based finance and a reduction in risk in the banking sector.

Outline

1. How pension policy drives for demand for market-based finance, both public and private
2. How heightened bank regulation and supervision drives the supply of market-based finance
3. Preliminary thoughts on welfare implications of this transformation

The Role of Pension Policy in Driving Market-Based Finance

Countries with generous "Pay-as-You-Go" pension systems have less well-funded private pension plans



←FUNDED PAYGO→

The Role of Pension Policy in Driving Market-Based Finance

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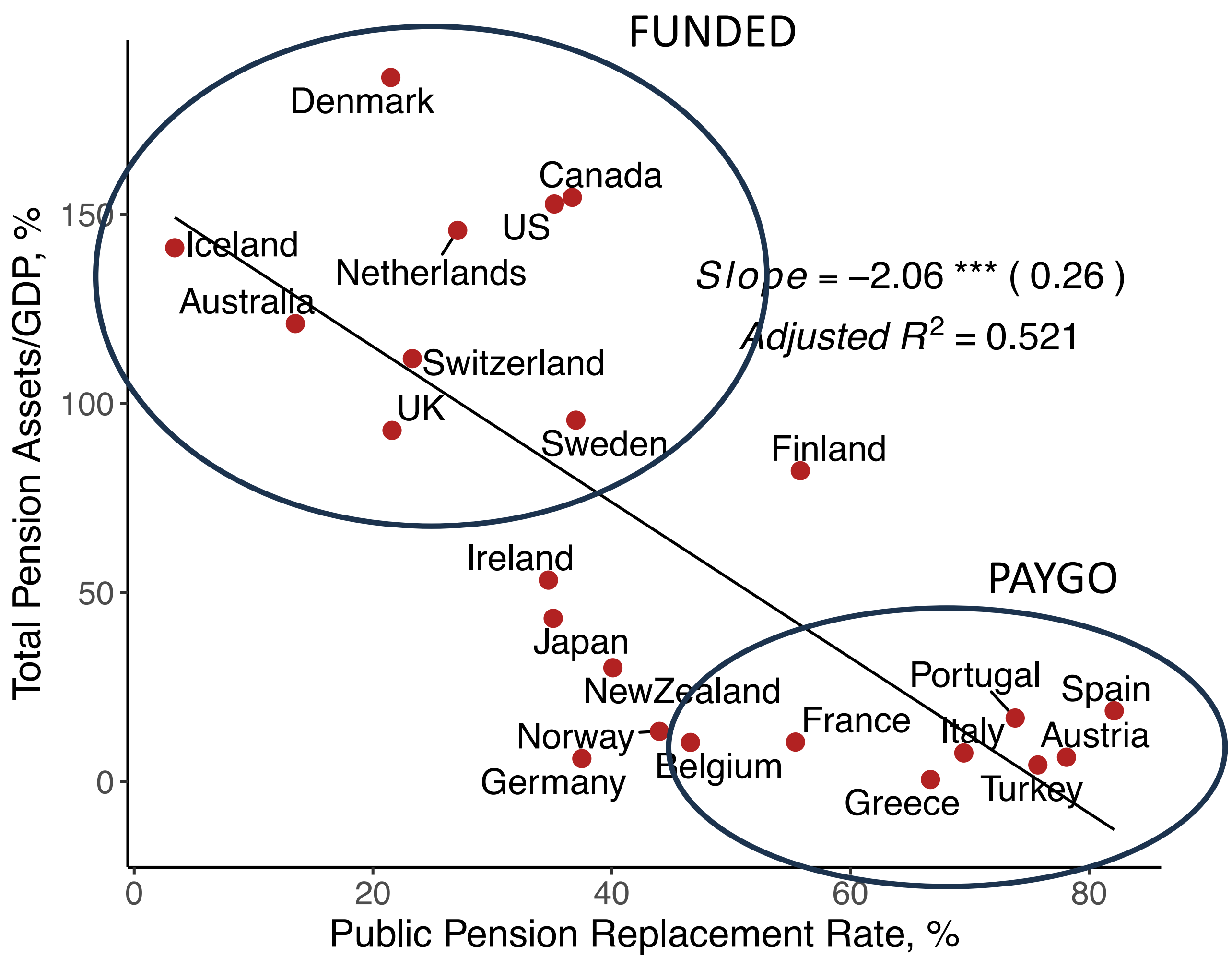
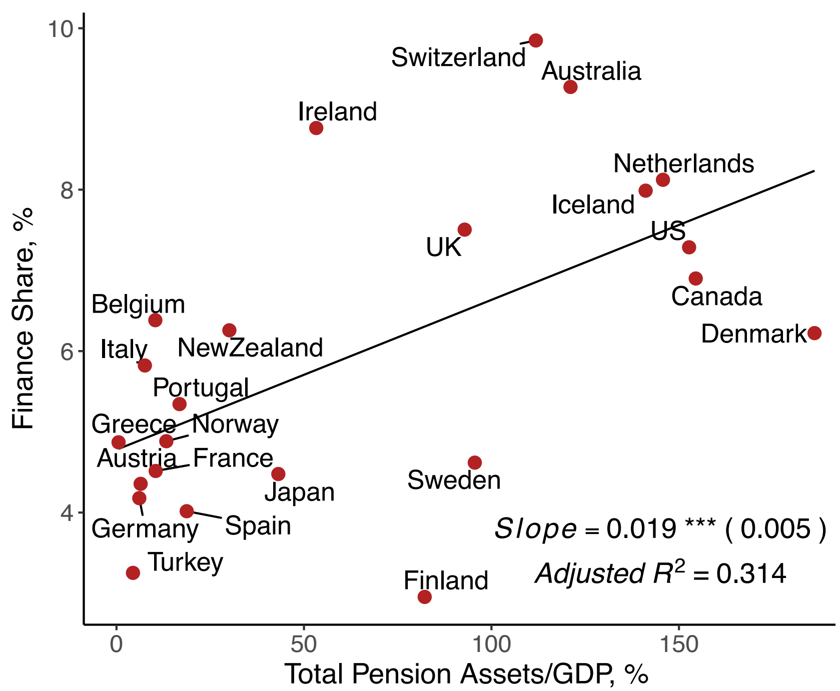
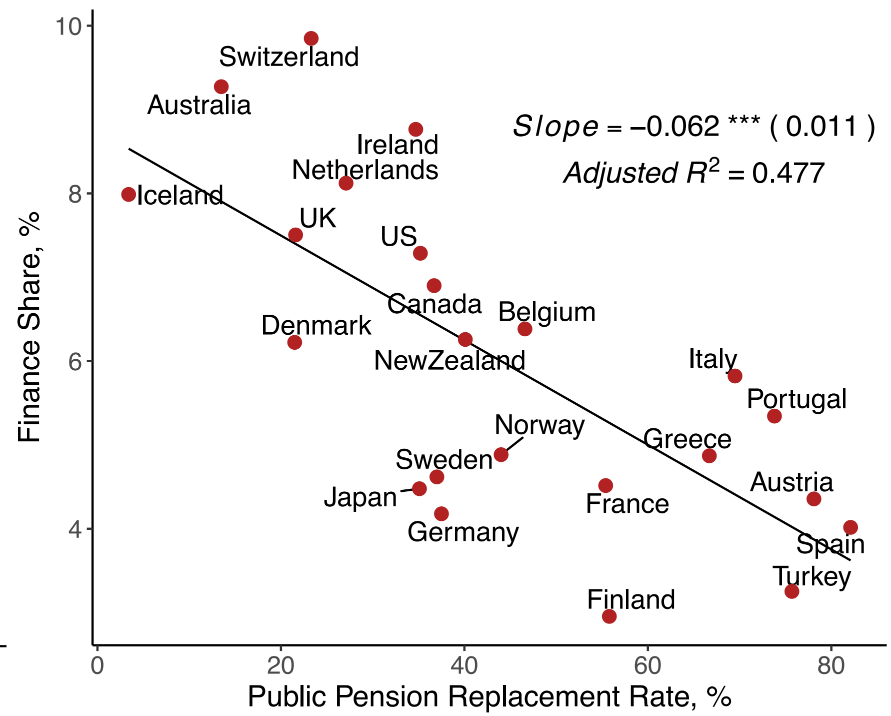


Countries with Funded Schemes Have Larger Financial Systems

- Mechanical connection given asset management fees
- Potential stimulative effect driven by asset demand



←PAYGO FUNDED→



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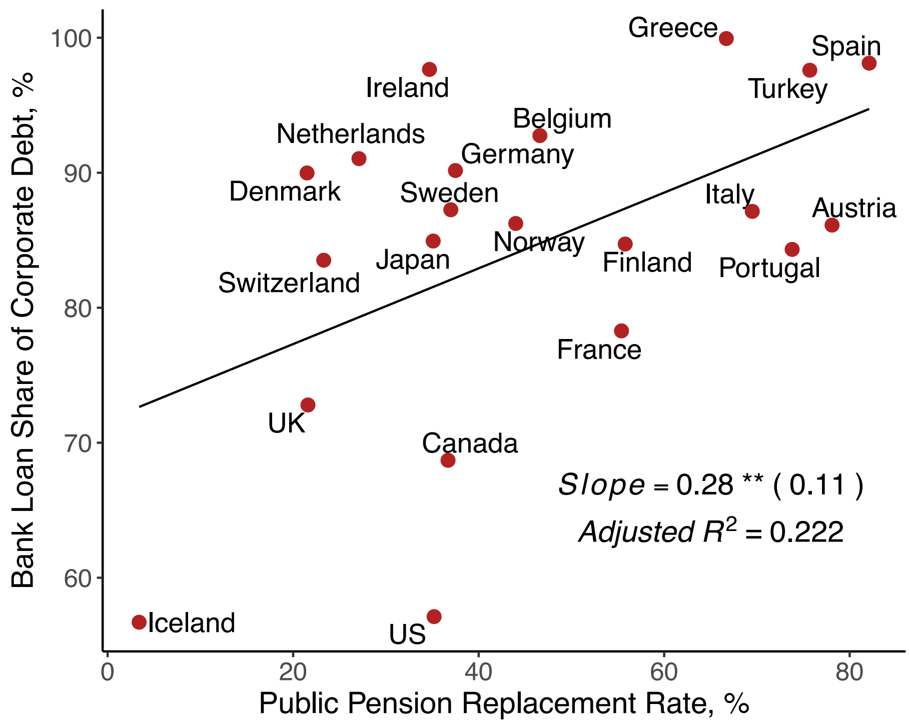
Countries with Funded Schemes Are Less Bank-Oriented



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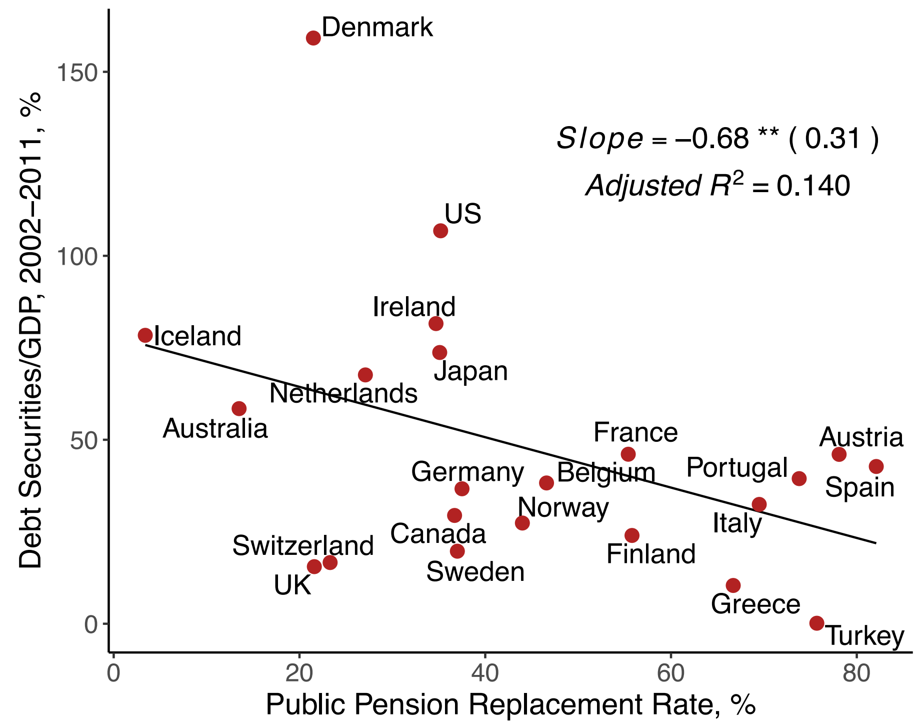

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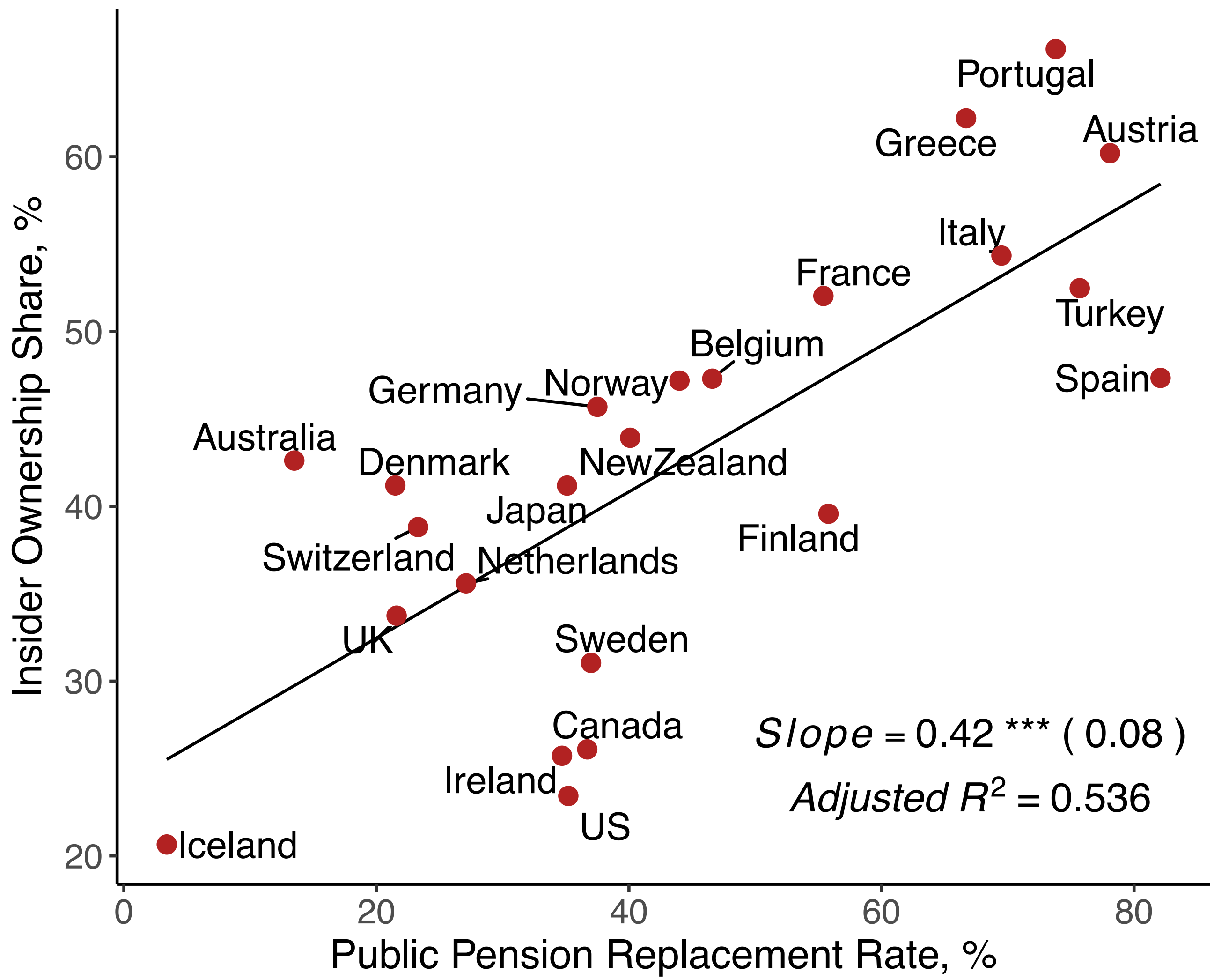
Companies more Widely Held in Countries with Funded Schemes



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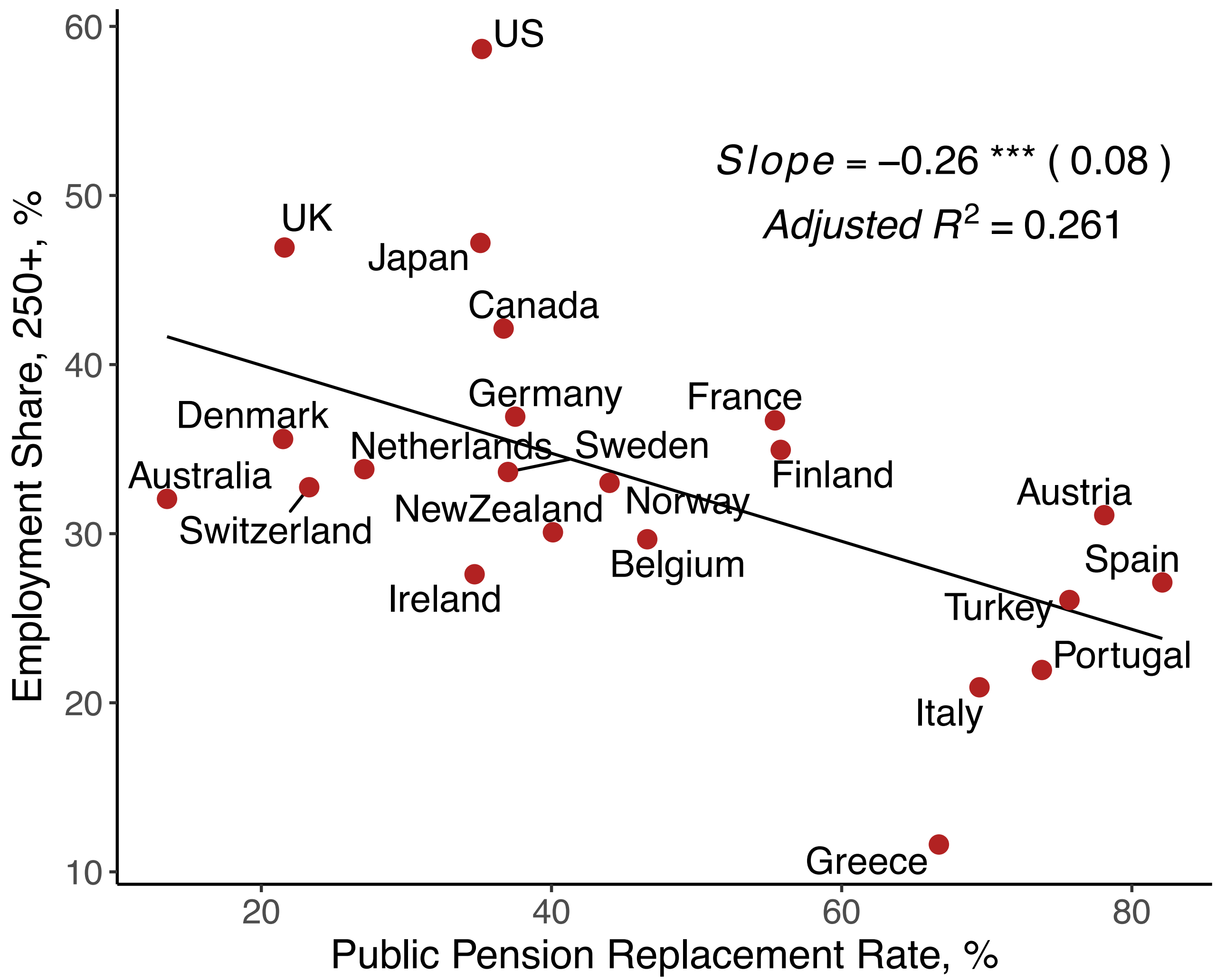
Companies are Larger in Countries with Funded Schemes



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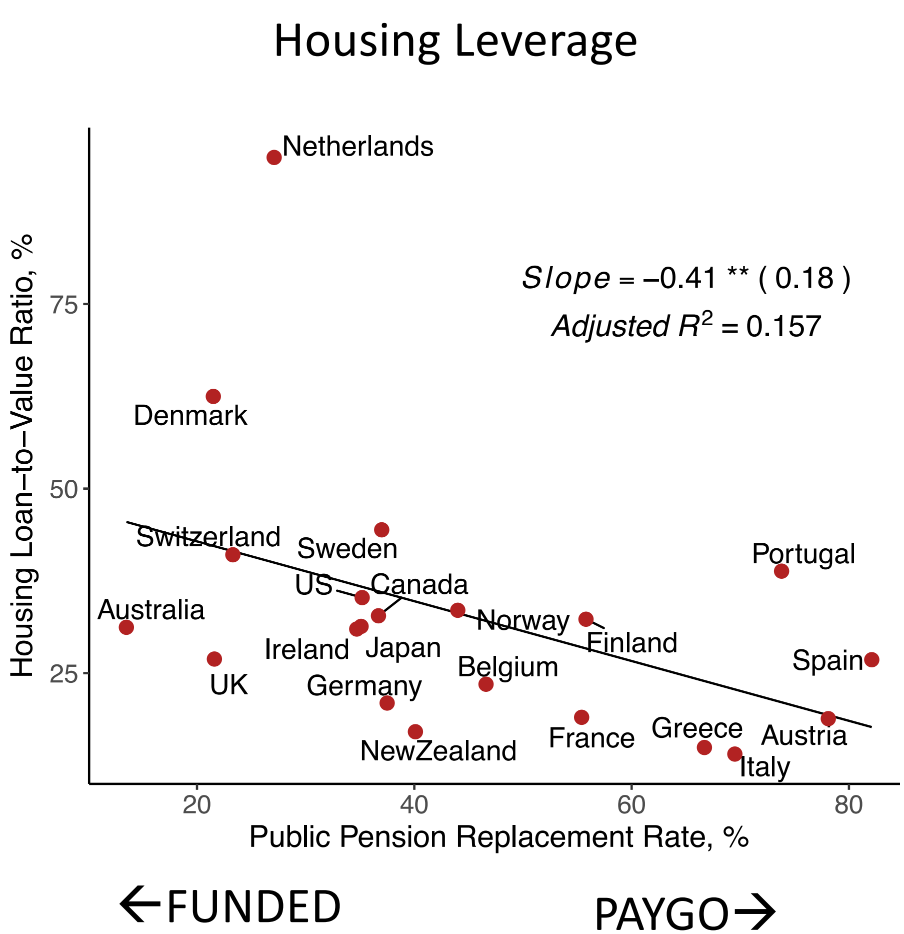
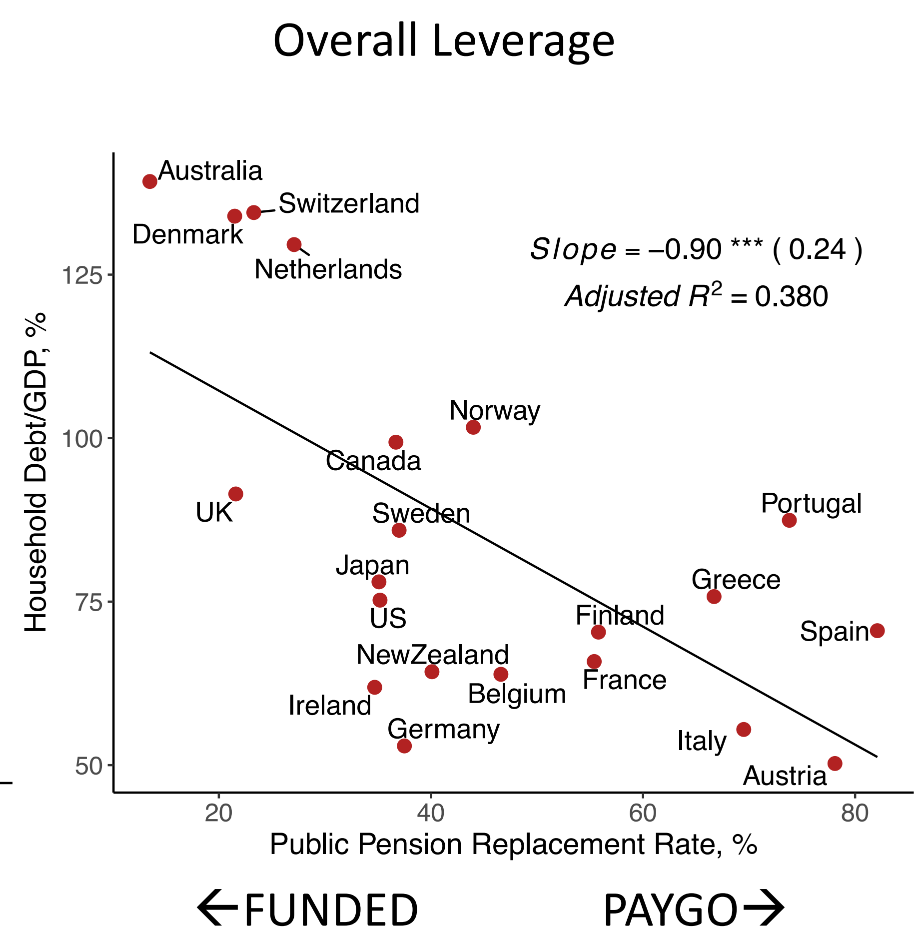
Households are More Leveraged in Countries with Funded Schemes





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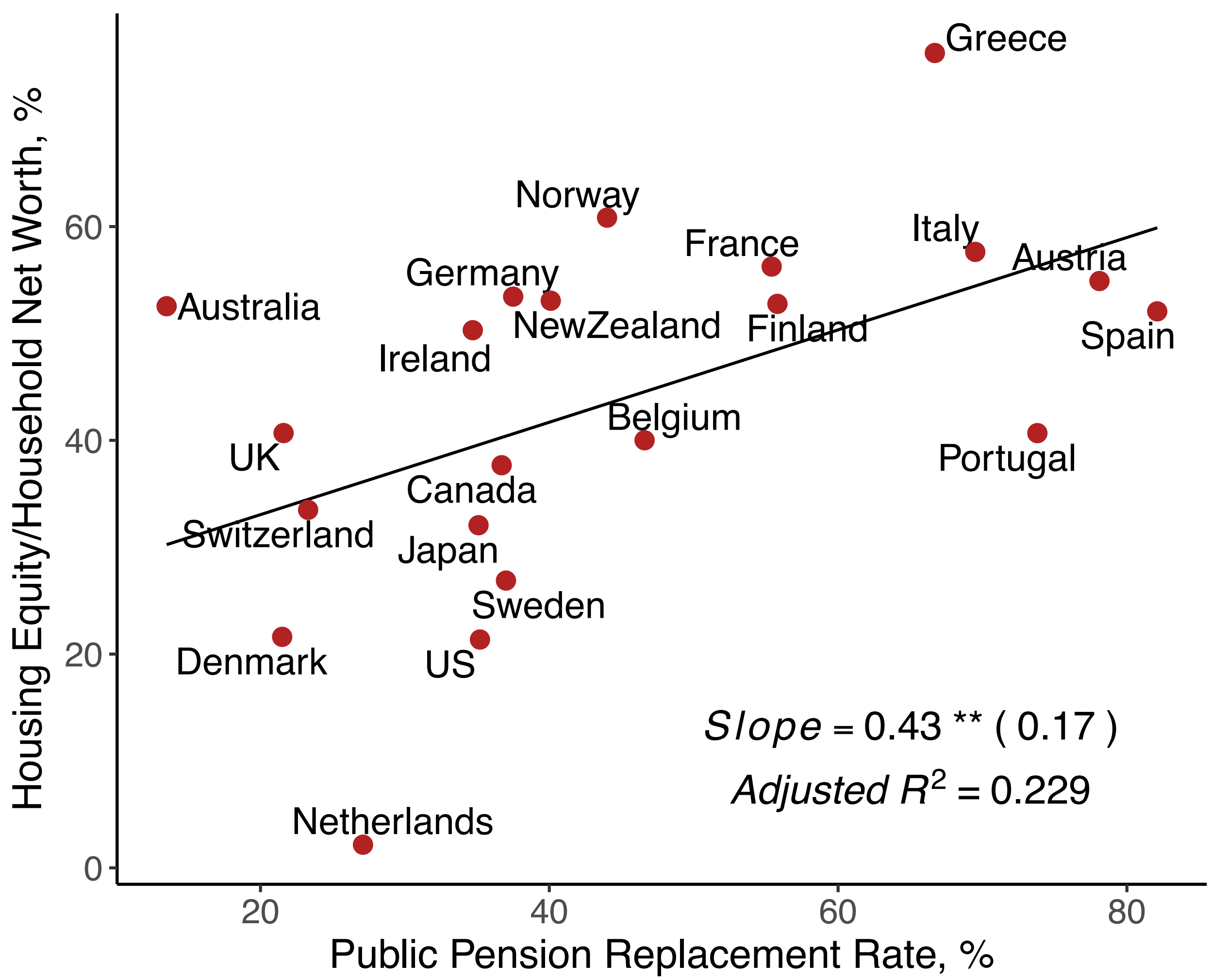
Households have Less Housing Equity in Countries with Funded Schemes



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Global Capital Allocation

- This analysis takes a very closed economy perspective, where only domestic savers can invest in domestic assets

- An extreme assumption, but to the extent that there are frictions in international capital flows, these effects will be observed particularly if foreign investors are more focused on holding government bonds (perhaps due to information disadvantages)

- Worth exploring the role of foreign investors in capital market development

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The Role of Bank Regulation in Driving Market-Based Finance

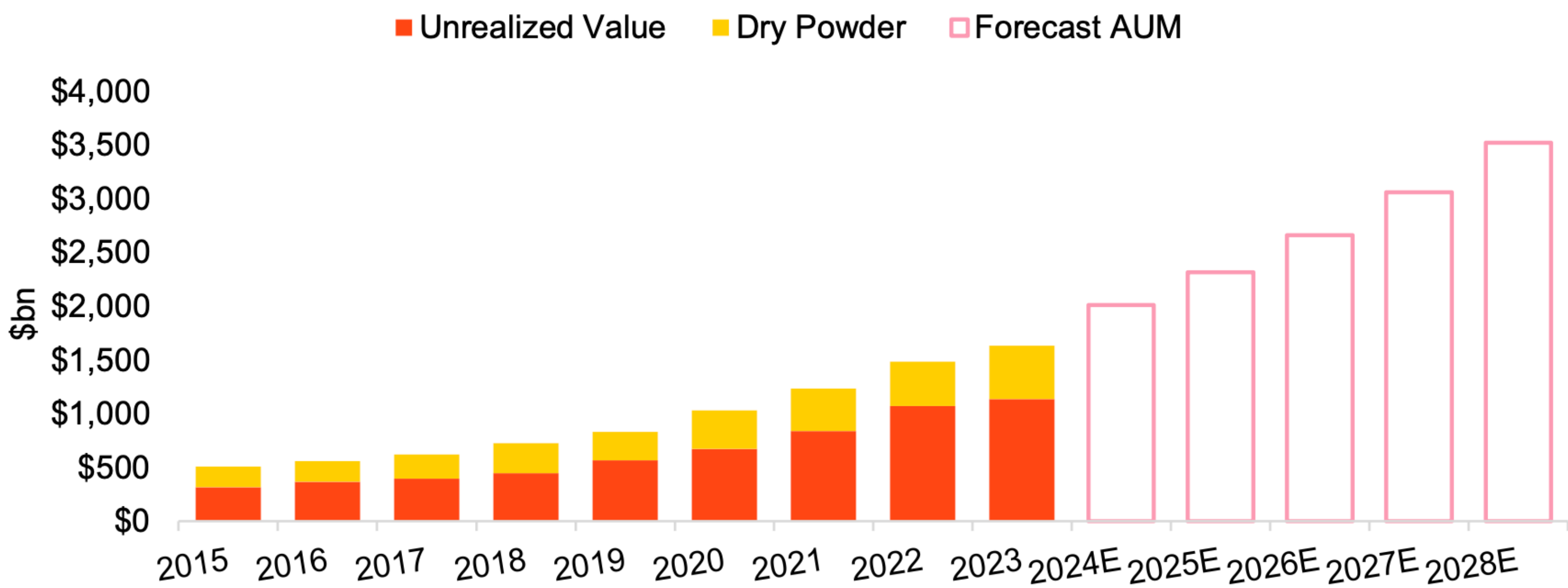
- ”Shadow Banking” Narrative: Enhanced capital regulation drives activity to less regulated, more leveraged entities

- “Safer Banking” Narrative:

  - Enhanced capital regulation favors safe lending over risky lending
  - Financial markets engage in risky lending with safer funding, provided in part by banks

- Regulation is driving market-based finance, possibly in a way that is making the system safer overall

Examining the “Safer Banking” Narrative via Private Credit Lens



Source: BlackRock, Preqin. Historical (actual) data from Preqin, as of each calendar year-end, through March 31, 2023. 2024E to 2028E are BlackRock estimates.

Based on “Bank Capital and the Growth of Private Credit,” Sergey Chernenko, Robert Ialenti, and David Scharfstein

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Sample of Business Development Companies in 2023Q2

	Mean	SD	Min	Percentile 25th	Percentile 50th	Percentile 75th	Max
Total assets	4,080	7,463	217	942	2,138	3,316	51,615
Asset shares							
Loans	0.82	0.11	0.58	0.76	0.84	0.91	0.96
Equity	0.09	0.08	0.00	0.04	0.07	0.12	0.29
CLO equity	0.01	0.05	0.00	0.00	0.00	0.00	0.30
JVs	0.02	0.05	0.00	0.00	0.00	0.00	0.22
Cash	0.03	0.04	0.00	0.02	0.02	0.04	0.25
Loan characteristics							
Loan size ($ mil)	15.91	45.58	0.00	1.15	4.78	14.80	1345.80
Loan spread (bps)	648.57	227.56	0.00	550.00	600.00	700.00	4135.00
Default beta	0.86	0.17	0.60	0.74	0.83	0.97	1.49
Debt/Assets	0.50	0.09	0.20	0.46	0.52	0.55	0.69
Debt shares							
Bank debt	0.40	0.21	0.00	0.29	0.41	0.57	0.70
Unsecured bonds	0.46	0.23	0.00	0.32	0.44	0.58	1.00
Securitized debt	0.07	0.15	0.00	0.00	0.00	0.00	0.67
Other debt	0.07	0.16	-0.05	-0.01	-0.00	0.01	0.51
Financing spread (bps)	238.66	51.54	175.00	200.00	230.00	267.06	425.00

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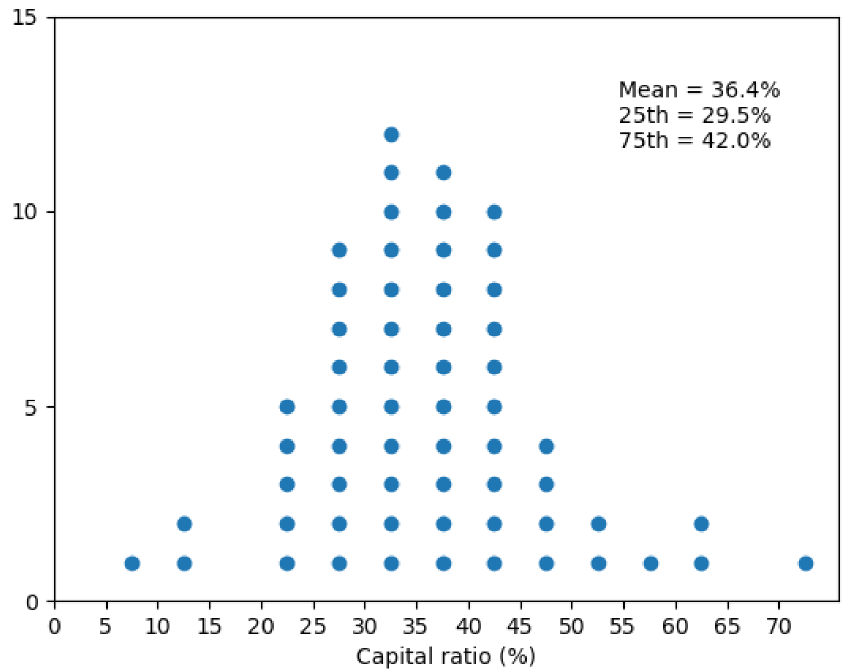
Characteristics of Portfolio Firms in Private Credit Funds

Based on a sample of 1,857 middle market borrowers across private credit funds

Percentile	Revenue ($ Millions)	EBITDA ($ Millions)	Debt/EBITDA	EBITDA/Interest
25	88.6	11.8	9.3	0.8
50	183.8	27.3	6.4	1.3
75	378.3	58.3	4.3	1.9
Credit Assessment	$\geq$ **b+**	**b**	**b-**	$\leq$ **ccc+**
Percent of Sample	11.6%	19.5%	40.9%	28.0%

Source: Private Credit: 12% Is Here – First Look at Interest Coverage and Liquidity for Middle Market Borrowers by Sector, KBRA.

BDC Capital Using Bank Capital Frameworks: Standardized Approach



Risk-Weighted Assets (136% median)

Asset	Risk Weight
Loans	100%
Equity in Private Company	400%
CLO Equity	1,250%
Undrawn Loan Commitments	50%

Adjustments

1. Adjust equity by subtracting the difference between fair value and amortized cost to account for fair value accounting used by BDCs versus amortized cost used by banks
2. Subtract allowance for loan & lease losses (ALLL) from assets and equity

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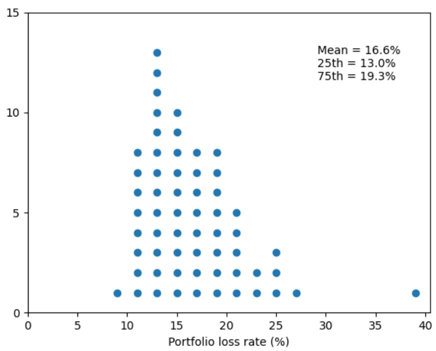
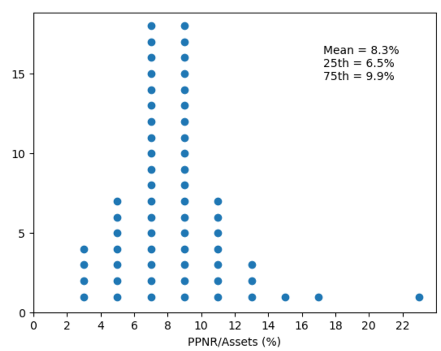
BDC Capital Using Bank Capital Frameworks: Stress-Testing Approach

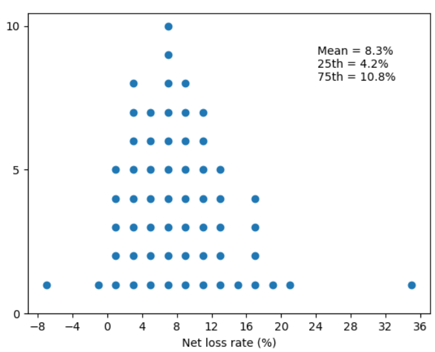
Portfolio loss rate



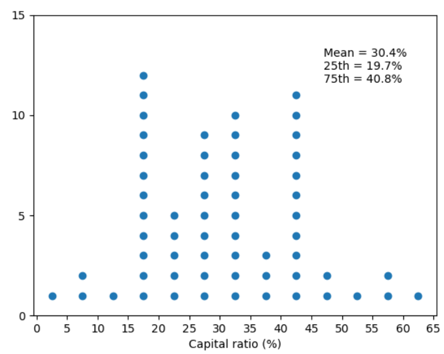
PPNR/Assets



Net loss rate



Stressed capital ratio



- Mean loss rate of 16.6%. Interquartile range of 13.0–19.3%.
- Mean PPNR of 8.3%. Interquartile range of 6.5–9.9%.
- Interquartile range of stressed capital ratio of 19.7–40.8%.

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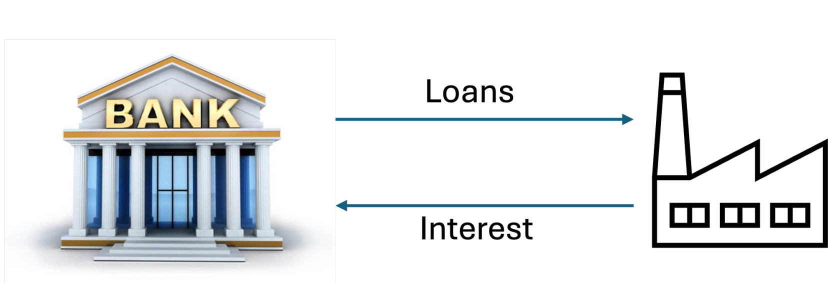
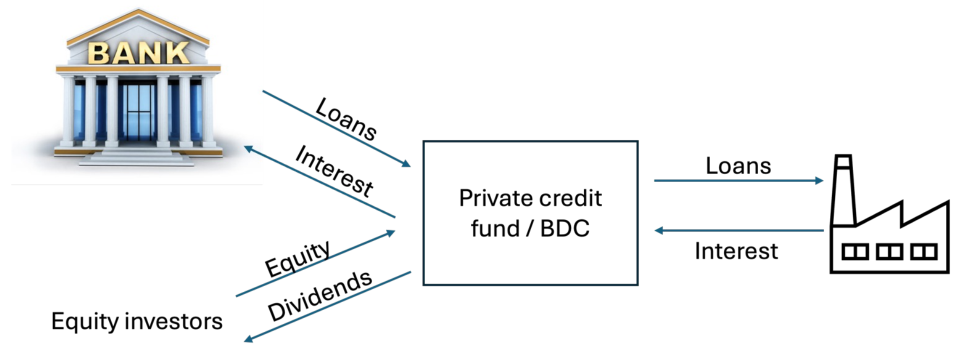
Better to Lend to Private Credit Fund than to Middle Market Firm





Middle Market Lending

- SOFR + 600bps; expected loss of 160 bps
- 100% risk weight → ~12% capital; stress testing → ~20% capital
- Funding costs of SOFR+55bps
- Operating expenses ~1.4% of assets

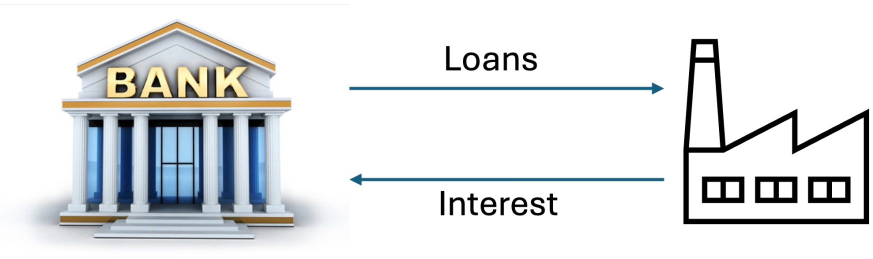
ROE = 14%

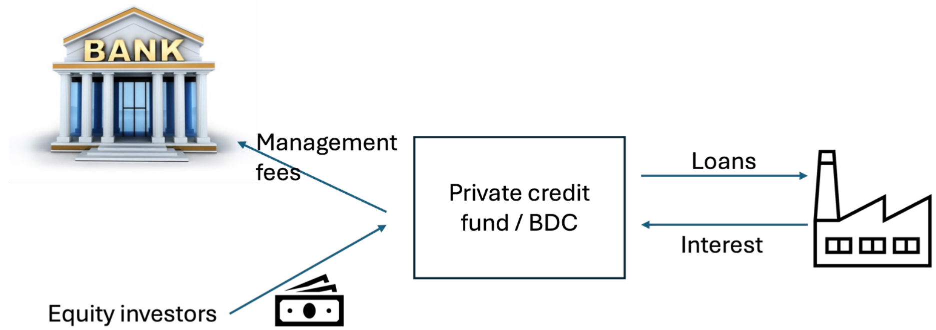
Lending to Private Credit Funds

- Overcollateralized loan to SPV gets treated as AAA securitization, 20% risk weight
- SOFR + 230bps; de minimis expected loss
- Low operating expenses, ~2% of assets

ROE = 33%

Better to Fund Middle Market Loan Off Bank Balance Sheet





Advantage

- Low cost funding – more leverage at lower cost (SOFR + 55 vs. SOFR + 230)

Advantages

- No double taxation
- Lower regulatory and supervisory compliance costs

Our estimates suggest that as long as regulatory and supervisory compliance costs are more than 100 bps, banks will prefer sponsoring private credit funds rather than lending on balance sheet

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Other Manifestations of ”Safer Banking”

- Growth of government securities on bank balance sheets
- Use of Credit Risk Transfers and Significant Risk Transfers
- Sale of commercial real estate loans to nonbanks
- CLOs: Better to hold senior tranche of CLO than underlying loans

Thoughts on Welfare Implications

- "Shadow Banking" and "Safer Banking" narrative have very different implications

- Under shadow banking narrative, asset demand from pension funds combined with enhanced bank prudential regulations and supervision drives activity to an unsafe market

- Under safer banking narrative, asset demand from pension funds combined with enhanced bank prudential regulations and supervision drives activity to a safer market

- While it may be too early to know for sure given that we have not been through a sustained financial crisis, safer banking narrative seems to be a better characterization middle market lending in the US.

Concluding Thoughts and Implications for UK

- Potentially important interplay between pension policy and bank regulatory policy
  - PAYGO pensions + stringent bank regulation may hamper credit creation
  - Funded pensions could facilitate growth of market-based finance as bank regulation is tightened

- Implications for UK
  - While UK pensions are funded schemes, impact on market-based finance may be muted by the fact that they are not big investors in private markets
  - Consolidation of local schemes may help increase allocations to private markets
  - Caveat: Robust interest in UK private markets from foreign investors helps fund growth of private markets

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