Bank Capital and the Growth of Private Credit

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Financial Intermediation in Transition: How Will Policy Adapt

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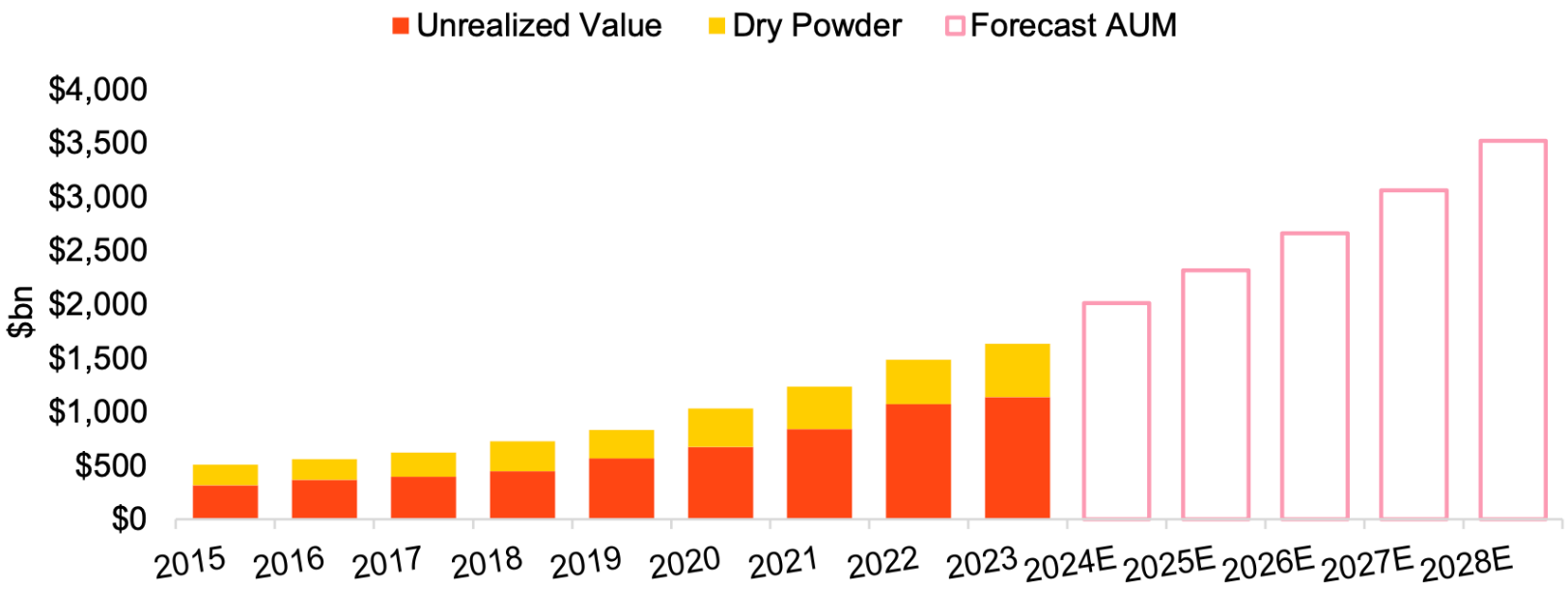
Growth in Private Credit



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

Broad Questions:

1. What explains the growth of private credit?

2. What are the potential risks to financial stability?

Potential Explanations

1. "Shadow banking" narrative: more stringent bank capital requirements post GFC cause lending to migrate to more highly levered nonbanks (threatening financial stability)

2. Capital requirements make it relatively more attractive for banks to "lend to lenders" than lend to risky middle market firms

3. Bank regulation and supervision leads to higher operating costs for banks relative to private credit funds

4. Private credit investors underestimate risk; fees too high relative to risk they are assuming
   - Academic evidence suggests that alpha in private credit is statistically insignificant with the possibility of sizable positive and negative excess returns (Erel, Flanagan and Weisbach, 2024; Suhonen, 2024)

Private Credit through the Lens of BDCs

- Business Development Companies (BDCs) are actively managed investment companies regulated under the Investment Company Act of 1940 ⇒disclose financial statements, portfolio holdings

- Broadly representative of US private credit funds
  - About 20% of US private credit
  - BDCs and US private credit funds have similar leverage (Block et. al, 2024)
  - Co-investment between BDCs and affiliated funds ⇒ large overlap in portfolio holdings

- ≥ 70% of assets in eligible investments: US private companies or those with public equity < $250m

- Leverage restrictions: Assets/Debt ≥ 200%; since 2018 can elect 150%.

- Registered Investment Company (RIC) pass-through entity. No entity level. taxation; dividends taxed as ordinary income. Must distribute at least 90% of income.

Sample of Business Development Companies in 2023Q2

				Percentile			
	Mean	SD	Min	25th	50th	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

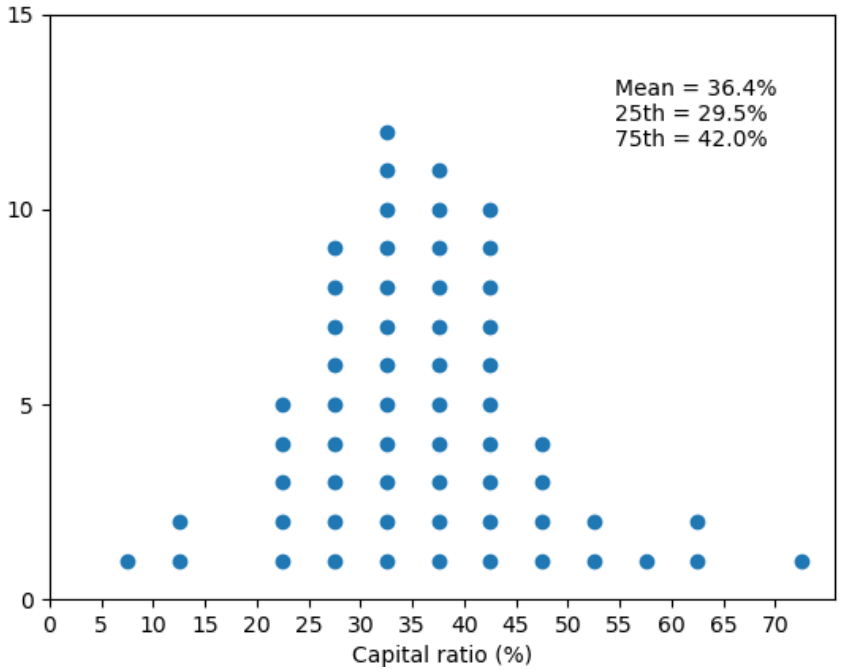
Characteristics of Portfolio Firms in Private Credit Funds

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	1.1
50	183.8	27.3	6.4	1.8
75	378.3	58.3	4.3	2.8
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, February 2024.

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

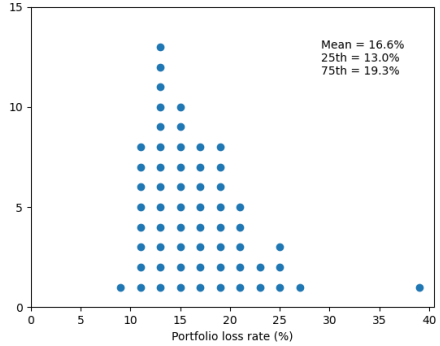
1. Adjust equity by subtracting the difference between fair value and amortized cost to account for fair value accounting used by BDCs versus amortized cost used by banks
2. Subtract allowance for loan & lease losses (ALLL) from assets and equity

Mean Risk-Weighted Capital: 36.4%

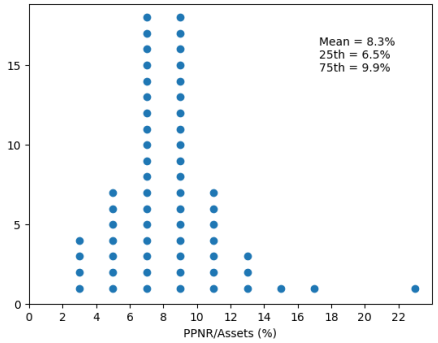
- 25th percentile: 29.5%
- 75th percentile: 42.0%

BDC Capital Using Bank Capital Frameworks: Stress-Testing Approach

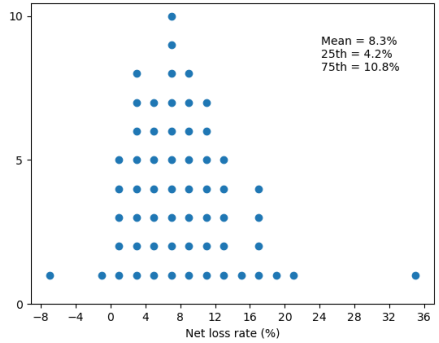
Portfolio loss rate



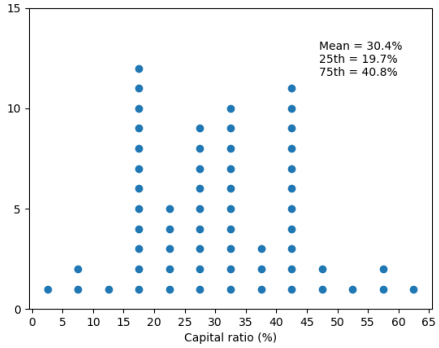
PPNR/Assets



Net loss rate



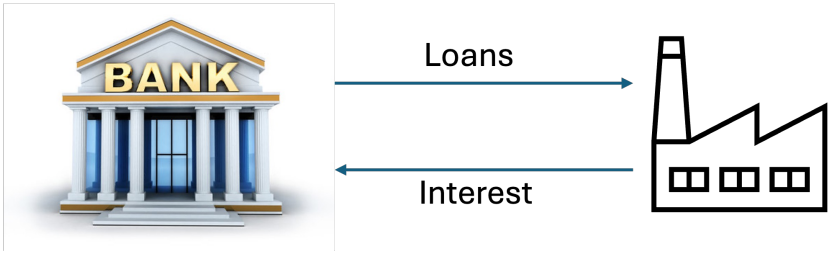
Stressed capital ratio

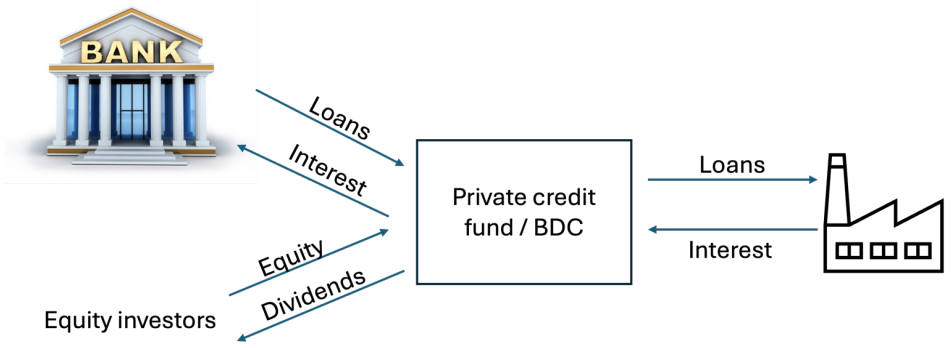


- Mean loss rate of 16.6%. Interquartile range of 13.0–19.3%.
- Mean PPNR of 8.3%. Interquartile range of 6.5–9.9%.
- Interquartile range of stressed capital ratio of 19.7–40.8%.

Mean Stressed Capital Ratio: 30.4%

Better for Bank 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

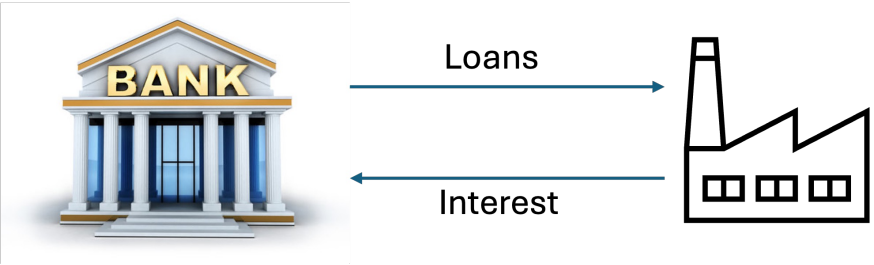
ROE = 14%

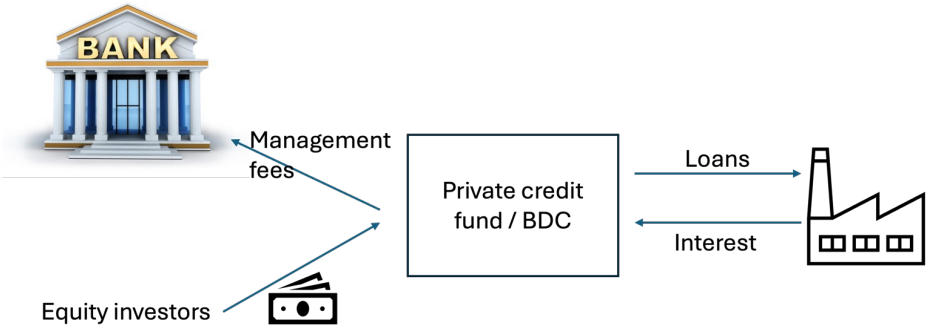
Lending to Private Credit Funds

- Overcollateralized loan to SPV gets qualifies for SSFA treatment as a securitization, typically 20% risk weight
- SOFR + 230bps; de minimis expected loss
- Low operating expenses, ~0.2% of assets

ROE = 33%

When is it Better for a Bank to Fund Middle Market Loan Off 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 50 - 100 bps, banks will prefer sponsoring private credit funds rather than lending on balance sheet

- Alternatively, if asset management fees are 50- 100 bps too high (i.e. negative alpha), banks will prefer sponsoring private credit funds rather than lending on balance sheet

Key Takeaways

- Credit is not migrating to more leveraged entities as it did pre-GFC

- Banks have no edge in middle market lending but they do have an edge in funding
  - Private credit funds dominate middle market lending despite funding disadvantage
  - Banks lend to private credit funds rather than middle market firms because they can exploit their funding advantage with more leverage/less capital

- If operating costs of running a risky loan portfolio on a bank's balance sheet are 50 -100 bps greater than if the loans are in a BDC or private credit fund, then middle market lending will migrate to private credit funds
  - Could be cost of compliance with supervision and regulation
  - Could be suboptimal portfolio decisions related to supervision and regulation (including leveraged loan guidance)
  - But evidence is also consistent with asset management fees being too high on a risk-adjusted basis

Potential Financial Stability Concerns

1. Banks incur losses on loans to BDCs
   - Risk to banks seems low given over-collateralization of loans

2. Banks incur losses on loans they also make to BDC portfolio companies

3. Deleveraging: Violation of regulatory leverage limits (asset coverage) and financial covenants forces BDCs to reduce lending/liquidate assets

4. Difficulty rolling over debt forces BDCs to reduce lending/liquidate assets
   - Only 11% of total debt matures within 2 years.

5. Redemptions by equity investors
   - More than $100B (1/3) in perpetual BDCs offering (quarterly, 5%) liquidity
   - Redemptions put pressure on a BDC's ability to comply with leverage limits (although redemptions allowed at board discretion)

6. Spike in portfolio company defaults and distress leads to negative macro spillovers

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Analysis of Deleveraging

- Investment Company Act of 1940 requires BDCs to maintain 200% asset coverage ratio (assets/debt).

- Small Business Credit Availability Act (SBCAA) of 2018 allows BDCs to elect to decrease their ACR to 150%.
  - Cannot incur additional debt or pay dividends if ACR will be violated.
  - Inability to pay dividends jeopardizes RIC status for corporate tax purposes.

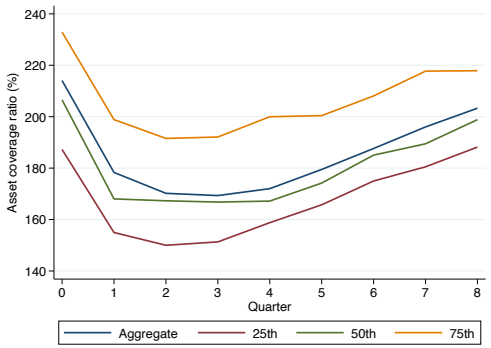
- Bank loans use ACR as a financial covenant.

- Approach: Apply dynamic stress testing methodology to measure asset coverage ratios under stress.

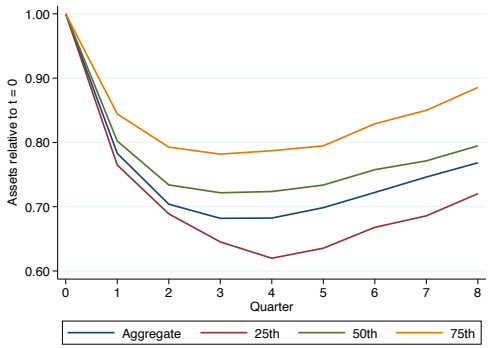
- Ingredients:
  1. Macroeconomic scenario builds on Fed's severely adverse scenario
  2. Portfolio valuation given Fed's severely adverse scenario
  3. BDC behavioral assumptions to stay in compliance with ACR minimums

Deleveraging Simulation

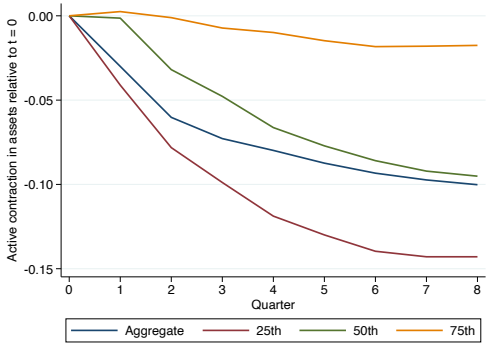
Asset coverage ratio



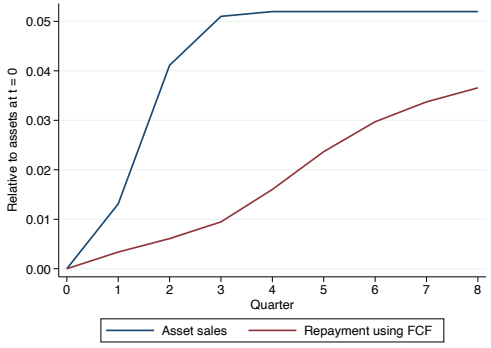
Assets relative to $t = 0$



Deleveraging



Asset Sales and FCF



- Median ACR quickly drops from 207% to 167%. Recovers gradually to initial value.
- Median decline in assets of 28%. Initially due to fair market value changes, later on due to deleveraging.
- Median BDC actively reduces assets by 9.5%; 25th percentile reduces assets by 14.3%
- Aggregate asset sales of $\approx 5\%$; FCF equal to 4% of assets used to repay debt.

Limitations of Deleveraging Analysis

1. Assuming that BDCs maintain their debt structure. Not modeling the ability to refinance maturing debt.

2. Not modeling redemptions from perpetual non-traded BDCs.

3. Not accounting for the lines of credit and undrawn commitments that BDCs extend to portfolio firms.

4. Not accounting for financial covenants in BDC credit facilities from banks. These may be more likely to bind than the regulatory asset coverage ratio.

5. Only modeling one scenario
   - More rapid defaults could lead to more deleveraging
   - Stagflation scenario could be more challenging to portfolio companies

Implications and Conclusions

- Growth of private credit is not easily explained by the standard regulatory capital arbitrage story.

- Private credit fueled by access to bank funding. More attractive for banks to lend to private credit funds, given favorable capital treatment, spreads, and lower origination costs.

- Leveraged loan guidance could be part of the explanation.

- More fundamentally, the growth of private credit and growth of bank lending to these funds (and NBFIs more generally) suggests that:
  - Banks likely do not have an edge in originating risky loans (high supervisory and compliance costs, lack of focus)
  - Banks do have an edge in raising low cost funding and thus have incentives to make safe loans to private credit funds with an edge in originating risky loans

- Financial Stability
  - Probably limited risk to banks
  - Deleveraging by private credit funds may be a bigger concern, but further analysis required to understand scale of potential impact