Private Debt versus Bank Debt in Corporate Borrowing

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August 2025

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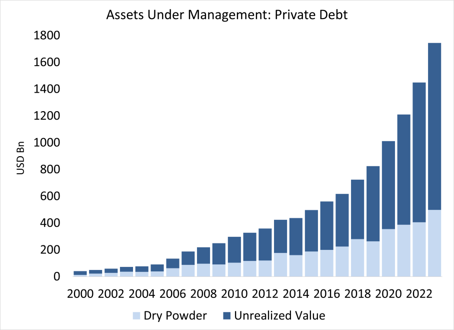
The Rise of Private Debt



Private Debt: Credit originated by non-bank lenders

- Private debt (PD) lenders: Mostly *Private Debt Funds* or *Business Development Companies (BDCs)*

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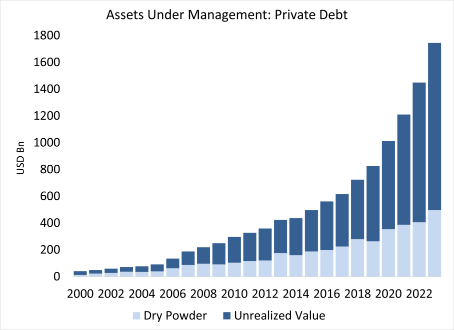

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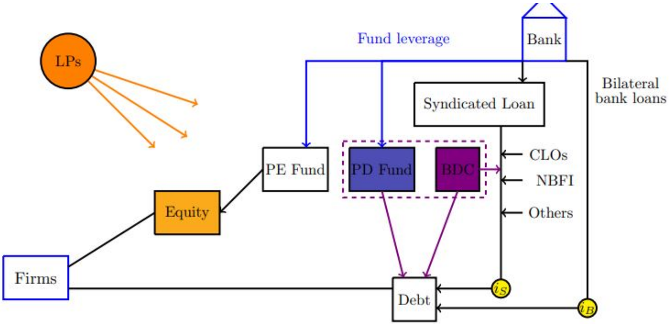
- Private debt (PD) lenders: Mostly *Private Debt Funds* or *Business Development Companies (BDCs)*
  - Focus on non-bank *direct* lenders
  - Different to non-bank indirect lenders, such as CLOs

This Paper — Bank Debt versus Private Debt



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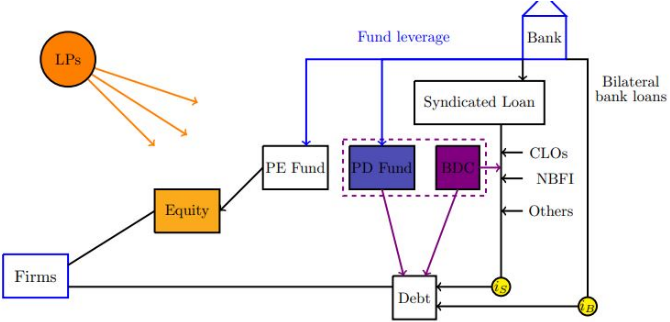

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2. Banks and PD lenders provide *distinct* types of debt financing
   - Banks provide credit lines; PD lenders offer term loans

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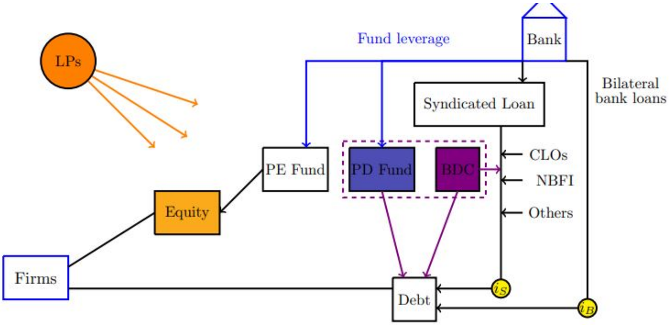

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2. Banks and PD lenders provide *distinct* types of debt financing
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Key Result: *Private debt substitutes for long-term bank credit, but complements banks' liquidity provision through credit lines*

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1. Banks and PD lenders often serve the same borrowers (**dual borrowers**), but provide distinct types of debt
   - Compared to *same* borrower's bank debt, private debt is junior and riskier with higher spreads

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   - After accessing private debt, dual borrowers obtain additional bank credit lines (at higher spreads)
   - Dual borrowers draw down bank credit lines heavily during distress
3. **Private debt substitutes for riskier bank term loans, while complementing banks' credit line provision**
   - Mechanism: Credit lines "insure" private debt

Data: Y-14 + Pitchbook from 2013-2023

1. **Pitchbook.** PD loans at origination: Loan size, loan type (credit line vs. term loan), maturity, spreads, borrower name, deal purpose
2. **Y-14.** Data on U.S. bank loans and borrowers
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$\approx$ 5800 PD borrowers

- 2917 **dual borrowers**, relying on *both* bank debt and private debt
- $\approx$ 2800 PD-only borrowers

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$\approx$ 17,000 PD loans and 7000 bank loans to dual borrowers; many bank loans to bank-only borrowers (control group)

- Bank loans restricted to leveraged loans
- For 80% of PD loans, borrower is backed by private equity sponsor

Selected Summary Statistics — Firm Level

Panel A: Dual Borrowers	N	Mean	Median
Total Assets ($ Mn)	2,917	1,700	326
Total Debt ($ Mn)	2,917	42.9	43.1
Tangible Assets (%)	2,917	64.5	63.8
Bank-Estimated Prob. of Default (%)	2,646	3.7	2.3
Panel B: Bank-Only Borrowers			
Total Assets	66,838	1,190	80.1
Total Debt	66,838	37.5	35.0
Tangible Assets	66,838	86.3	96.3
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- Relative to bank-only borrowers: Dual borrowers are (i) larger, (ii) riskier, (iii) more levered, and (iv) have fewer collaterizable assets
- We also show that:
  - Dual borrowers use private debt to expand and invest
  - Dual borrowers mostly in software/tech/service-based industries

Comparing PD Loans and Bank Loans to Same Borrower

$y_{l,t}$	Amount	Spread	Maturity	Seniority	Term Loan	Credit Line
PD_l	0.426***	3.516***	0.734***	-0.306***	0.561***	-0.415***
	(0.071)	(0.137)	(0.061)	(0.030)	(0.021)	(0.022)
Firm×YearQtr FE	Y	Y	Y	Y	Y	Y
Loan Controls	N	N	N	N	Y	Y
N	126,854	95,799	126,856	121,978	126,854	126,854

- Results (1)-(4) robust to firm×time×loan type FE
- All results robust to dropping firm×time FE (larger sample) or to including various loan controls

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- Private debt is riskier and junior, relative to bank debt

PD Loans Are Larger with Higher Spreads

	Loan Amount			*Loan Spread*		
	(1)	(2)	(3)	(4)	(5)	(6)
PD_l	0.426***	0.657***	0.465***	3.516***	2.037***	1.791***
	(0.071)	(0.100)	(0.117)	(0.137)	(0.129)	(0.145)
$PD_l \times PE\ Buyout_l$			-0.309*			0.731***
			(0.185)			(0.242)
Firm×YearQtr	Y	N	N	Y	N	N
Firm×YearQtr×LoanType	N	Y	Y	N	Y	Y
Loan Controls	N	N	Y	N	N	Y
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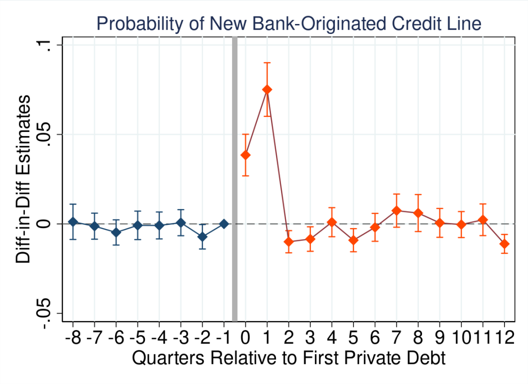
3. PD lenders charge additional 70 b.p. for buyout loans

How does the Rise of Private Debt affect Bank Lending?

- Dynamic diff-and-diff with firm and sector-time FEs; loan and firm controls



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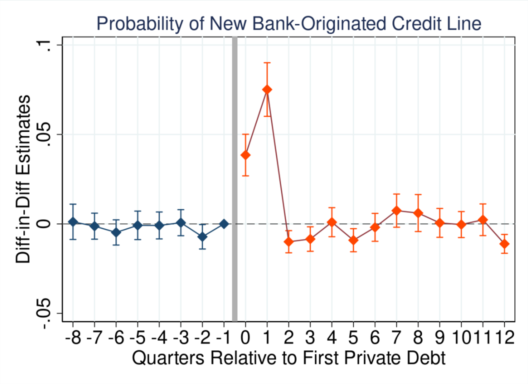

Once a bank borrower taps into private debt, it often obtains new bank loans in the form of credit lines

- When accessing PD, firms not only maintain their bank relationship, but also obtain additional bank credit line commitments

Firms Obtain Add. Credit Lines Following PD Access

	1(New Term Loan)	1(New Credit Line)	Spreads	Spreads
$PD_{i,t}$	0.007***	0.013***	0.226***	0.123***
	(0.002)	(0.002)	(0.055)	(0.027)
Firm FE	Y	Y	Y	Y
Bank$\times$time	Y	Y	Y	Y
Sector $\times$time	Y	Y	Y	Y
Sample	Full	Full	New Loans	Full
N	5.82e+05	5.82e+05	27507	5.82e+05

- Bank loan-level regression: $PD_{i,t} \in \{0, 1\}$ indicates whether borrower i has borrowed from PD lenders up to time t
- Identification via bank-time and firm FE: Compare same bank's loans to a given borrower i before and after i taps into private debt

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Once a bank borrower taps into private debt, it often obtains new bank loans, primarily credit lines, but at increased spreads

- Dual borrowers exhibit higher *demand* for liquidity insurance

Robustness

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3. **Outstanding Credit Lines:** Commitment size increases upon PD access (e.g., due to renegotiation)
4. **Firm-Level Analysis:** Relative to comparable bank-only borrowers, dual borrowers rely more on bank credit lines

Instrument for Private Debt Access/Supply

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  - Sample restricted to borrowers that at some point become dual borrowers and take out private debt

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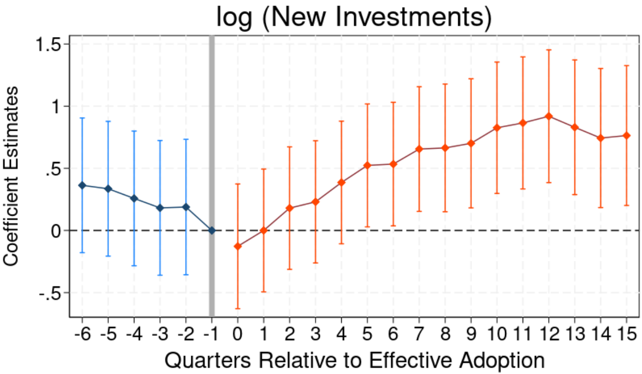
- **Relevance:** Adoption increased BDCs' leverage capacity and lending (Balloch and Gonzalez-Uribe, 2021)
  - SBCAA constituted increase in private debt supply
- **Exclusion Restriction:** Timing not fully predictable
  - Effective adoption delayed due to regulatory lags (e.g., board approvals or multi-step compliance)

Relevance of Instrument



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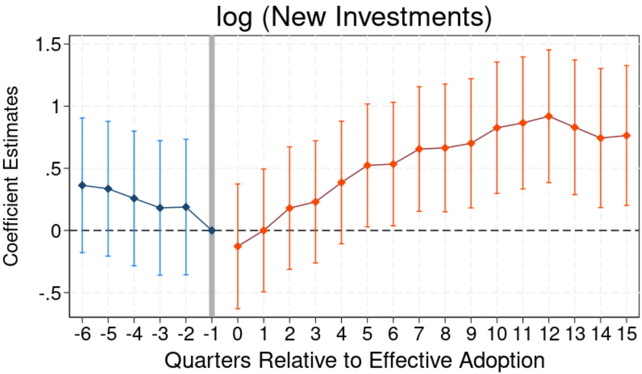

- BDC leverage and **investments** increase following SBCAA adoption
- That is, SBCAA adoption expands private debt supply (through adopting BDCS)
- Very high first-stage F-Stat

IV Results: Credit Lines vs. Term Loans

	Credit Lines			Term Loans		
	1(New Loan)	Amount	Interest Rate	1(New Loan)	Amount	Interest Rate
$\widehat{PD_{i,t}}$	0.228***	3.728***	1.316**	-0.860	-0.045	-0.697
	(0.083)	(1.359)	(0.559)	(1.547)	(0.095)	(0.549)
First Stage F-stat	53.71	53.71	53.71	13.51	13.51	13.51
Bank $\times$ Time FE	Y	N	Y	Y	N	Y
Sector $\times$ Time FE	N	Y	Y	Y	Y	Y
Loan & Firm Controls	Y	Y	Y	Y	Y	Y
Observations	41,651	41,651	41,651	16,405	16,405	16,405

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- Increased PD supply induces borrowers to obtain private debt
- PD access, in turn, stimulates borrowers' demand for liquidity insurance through credit lines
- No significant results for term loans; private debt substitutes for bank term loans

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  - PD access linked to higher spreads; dual borrowers draw down credit lines heavily during distress
- Does the complementarity simply reflect the standard bundling of credit lines and term loans? **Answer:** No
- What are the economic mechanisms? **Mechanism:** Credit lines insure private debt

Beyond Standard Bundling...

Concern: Complementarity between private debt and bank credit lines akin to standard bundling of credit lines and term loans

- Compare dual borrowers to bank-only borrowers that obtained a new term loan within the same year and quarter

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	(0.020)	(0.342)	(0.068)
Bank×Time FE	Y	Y	Y
Sector×Time FE	Y	Y	Y
Controls	Y	Y	Y
Control Group Issued New TL	Y	Y	Y

- Relative to bank-only borrowers that obtained term loan: dual borrowers have higher propensity to obtain additional bank credit line commitments

Why PD Loans Complement Bank Credit Lines

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3. **Financing Scale and Access:**
   - PD term loans are larger, necessitating larger bank credit lines.
   - When banks cannot offer additional term debt, PD access enables new term and credit line financing.

Conclusion

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Private debt substitutes for long-term bank credit, but complements banks' liquidity provision through credit lines

Appendix — Firm Level Analysis

	Debt/EBITDA	Bank Debt (log)	Interest Coverage	Credit Line Share
	(2)	(3)	(4)	(6)
PD_{it}	0.648**	0.123***	-2.874***	0.0342***
	(0.27)	(0.04)	(0.57)	(0.01)
Firm FE	Y	Y	Y	Y
Firm Controls	Y	Y	Y	Y
Sector x Year FE	Y	Y	Y	Y

Reliance on private debt associated with

1. Increase in leverage
2. Decrease in interest coverage ratio, i.e., increase in interest expenses
3. Increase in bank debt (in logs)
4. Increase in share of credit lines to total bank debt