Appendix to: "Could the Growth of Private Credit Pose a Risk to Financial System Stability?"

José L. Fillat, Mattia Landoni, John D. Levin, and J. Christina Wang

To help gauge the extent to which private credit (PC) growth reflects credit substitution versus credit expansion, we collect loan-level data on bank commercial and industrial (C&I) loans, broadly syndicated loans (BSLs), and PC loans. To the best of our knowledge, our study is the first to compare loan-level statistics across the three markets. Bank C&I loan data come from the FR Y-14Q filings, Schedule H1 ("Y-14"). These data cover C&I loans of \$1 million or more held by banks that are subject to the Y-14 reporting requirement. The loans held by these banks amount to about 81 percent by value of total bank C&I loans outstanding. The data contain information on loan characteristics (size, terms, etc.) as well as on loan performance, including nonaccrual status.

The data on BSLs come from the commercial data provider Pitchbook LCD (formerly Leveraged Commentary and Data). These data capture broadly syndicated loans at issuance. LCD aims to provide broad coverage, and we estimate that deals reported in the LCD data represent about 97 percent by value of all deals. This data source, like the Y-14, provides rich information about loan characteristics. However, it has a limitation. It does not provide information about refinancing or other reasons for early loan termination. Therefore, to turn this data set of deal flows into a snapshot of outstanding loans, we keep for our analysis only loans issued since 2021 that have not yet matured.

As a source of data on the PC market, we use the portfolio disclosures of publicly traded business development companies (BDCs), a subset of PC lenders. Because they are publicly traded, these firms file standard periodic reports with the Securities and Exchange Commission (SEC), from which we obtain position-level information about their portfolios. We estimate that public BDC portfolios amount to about one-sixth of the PC market by value.² Similarly to the Y-14 data, these data contain nonaccrual status of the loans.³ Despite accounting for a relatively

¹ Y-14 data are collected for stress-testing purposes and therefore only banks subject to stress tests disclose this information.

² Our estimate (17.5 percent for 2023:Q2) is obtained as the ratio of total BDC debt holdings in our BDC holdings data (\$201 billion, according to the LCD data) to total Private Credit assets under management (\$1.15 trillion, according to the investment data company Preqin). The International Monetary Fund (IMF 2024) similarly estimates that BDC holdings represent "14 percent of the market."

³ The nonaccrual definition is similar across regulatory agencies. For the SEC, loans "are placed on nonaccrual status and considered nonperforming when full payment of principal and interest is in doubt, or when principal and interest has been in default for a period of 90 days or more, unless the loan is both well-secured and in the process of collection." (See US Securities and Exchange Commission, "Loans and Leases Receivable Disclosure [Line Items]." Similarly, the instructions to FFIEC form 031 (one of the so-called Call Reports forms that banks are required to file on a quarterly basis) states, "An asset is to be reported as being in nonaccrual status if: (1) it is maintained on a cash basis because of deterioration in the financial condition of the borrower, (2) payment in full of principal or interest is not expected, or (3) principal or interest has been in default for a period of 90 days or more unless the

small share of the PC market, BDC loan portfolios are reasonably representative of loan portfolios held by other PC entities such as unlisted BDCs and private direct lending PC funds, according to our discussions with industry participants.⁴ This is consistent with the existing literature (see, for example, Suhonen 2023 and Block et al. 2024).⁵

	Bank Loans	Private Credit	BSLs
Mean loan size (\$m, FV)	8.4	222	560
Percent collateralized	74%	97%	98%
Spread (bps, v.w.avg.)	178	600	347
Nonaccrual rate (self-reported)	0.45%	0.69%	
First-lien only	0.49%	0.53%	
Default rate (KBRA definition)		2.10%	5.80%

Table 1A: Summary of loan-level data across US bank loans, broadly syndicated loans, and private credit loans.

Source(s): Authors' calculation using data from FR Y-14Q filings and Pitchbook LCD as of 2023:Q2.

Table 1A shows the summary statistics of the three sets of loans from the three data sets. The first row shows mean loan sizes. The mean PC loan size in 2023 was \$222 million, falling between the mean C&I loan size of \$8.4 million and the median BSL size of \$560 million. Note that the mean bank loan size may be overestimated because the distribution is left-censored at \$1 million. Conversely, the mean private credit loan size is almost certainly underestimated because BDCs report fractional holdings, as discussed in footnote 5. Despite these limitations, the data clearly show that PC loans are much more similar to BSLs than to bank C&I loans, suggesting that banks still maintain dominance at the small end of the size spectrum. Data from Kroll Bond Rating Agency (KBRA), a commercial data provider, also show that PC loan deals have grown larger, with 2022 and 2023 setting new records for jumbo issuance volume and many more loans approaching the size of typical BSLs (see KBRA 2024).

The second row of the table shows that the great majority of loans are collateralized regardless of the market, and, in fact, bank loans are the only segment with a nontrivial fraction of

asset is both well secured and in the process of collection." (See FFIEC form 031, "Schedule RC-N: Past Due and Nonaccrual Loans, Leases, and Other Assets.")

⁴ A caveat is that BDCs must hold assets equivalent to at least 150 percent of their debt, per SEC requirements. This is one reason BDCs might not be representative of the broader universe of PC funds. (See US Securities and Exchange Commission, <u>"Staff Responses to Inquiries Regarding Business Development Companies and Section 61(a)</u> of the Investment Company Act of 1940.")

⁵ One limitation of these data is that they are not loan level but position level; that is, each entry is a fraction (perhaps often, but not always, 100 percent) of a loan held by a BDC in a given quarter. In practice, this means that we do not have information about actual loan sizes at the loan level. We thus source information on the distribution of loan sizes from a report by KBRA; see KBRA (2024).

uncollateralized loans. We further analyze loan collateralization in Figure 1A, which shows loans to low- and high-tangible-asset industry borrowers, expressed as a value-weighted share of each lender type's aggregate loan portfolio. To plot this figure, we manually classified nonfinancial borrower industries into the two groups.

PC and BSL borrowers are both more likely than bank borrowers to belong to low-tangible-asset industries, such as media and entertainment. Multiple factors may be driving this marked difference. For example, banks may prefer to lend to firms with more tangible assets, such as heavy manufacturing. Also, BSLs and PC loans have stronger links to private equity deals, which in turn may be preferred for certain industries.

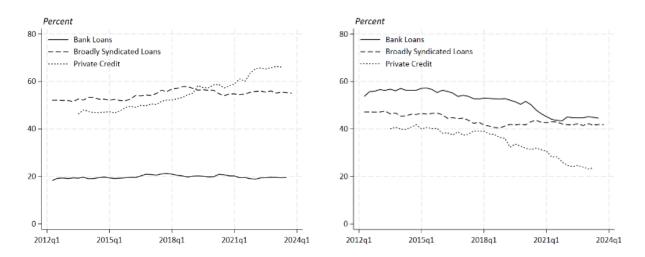


Figure 1A: Share of Low- and High-tangible-asset Industries in Loan Portfolios

Note(s): The figure shows the share of low-tangible-asset industries (left panel) and the share of high-tangible-asset industries (right panel) as a share of the total loan portfolios for banks, broadly syndicated loans (BSLs), and private credit lenders over the 2012–2023 period.

Sources: Pitchbook LCD and FR-Y14Q, Schedule H.1.

The third, fourth, and fifth rows of Table 1A report loan spreads and performance. Spreads on PC loans are much larger than spreads on BSLs and bank loans. Usually, the primary reason for such a difference in spreads would be higher fundamental risk. On one hand, our data do not support this explanation, as PC loans so far have had nonaccrual rates comparable to bank loans. They also have lower default rates than BSLs, even when we use a uniform KBRA definition of default that we manually apply to each default event. On the other hand, because the PC market is relatively new, we lack data on PC loan performance in a recession. Lower nonaccrual or default rates could also partly reflect greater propensity to renegotiate deals and cure nonperformance.⁶ If we instead take these performance figures at face value, they imply that the much larger spreads charged by PC lenders are not due to higher fundamental risk, but

⁶ While our data do not allow us to make an "other things equal" comparison of banks' and PC funds' relative propensity to cure nonperformance, pay-in-kind (PIK) arrangements that preempt nonaccrual altogether are prevalent in private credit deals and rare for bank-issued loans.

rather to other factors such as more customized products that are better tailored to the borrowers' needs, greater market power of PC lenders, or a larger illiquidity premium.⁷

Private credit has gained market share from banks in recent years as it has grown rapidly, and this has likely caused banks to lose some fees from BSL originations. On the other hand, banks may have partially offset this loss by growing the fee-based advisory services that they offer PC lenders. The net effect on fees is unclear. Better data and further analysis are needed to fully assess the net impact on banks' fee income.

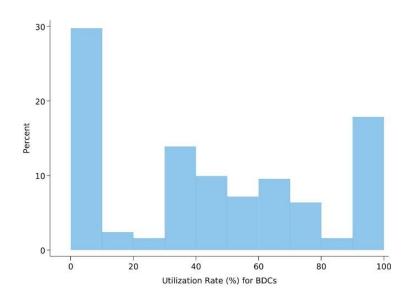


Figure 2A: Distribution of the Utilization Rate of Bank Loans to BDCs

Note(s): The figure shows the distribution of the ratio of utilized credit relative to committed credit of bank loans from large US banks (more than \$100 billion in total consolidated assets) to business development companies (BDCs) as of 2023:Q4.

Source(s): FR-Y14Q, Schedule H.1; authors' calculations.

References

Block, Joern, Young Soo Jang, Steven N. Kaplan, and Anna Schulze. 2024. "A Survey of Private Debt Funds." *Review of Corporate Finance Studies* 13(2): 335–383. https://doi.org/10.1093/rcfs/cfae001

International Monetary Fund (IMF). 2024. "The Last Mile: Financial Vulnerabilities and Risks." *Global Financial Stability Report*. April.

https://www.imf.org/en/Publications/GFSR/Issues/2024/04/16/global-financial-stability-reportapril-2024

⁷ An alternative explanation proposed by Suhonen (2023) is that the accounting performance of private credit loans overstates their true, market-value-based returns. Suhonen attributes this discrepancy to a secular increase in the gap between net asset values and market values of business development companies.

Kroll Bond Rating Agency (KBRA). 2024. "Insights & Outlook Report (Full Year)." January. Suhonen, Antti. 2023. "Direct Lending Returns." *Financial Analysts Journal* 80(1): 57–76. https://doi.org/10.1080/0015198X.2023.2254199