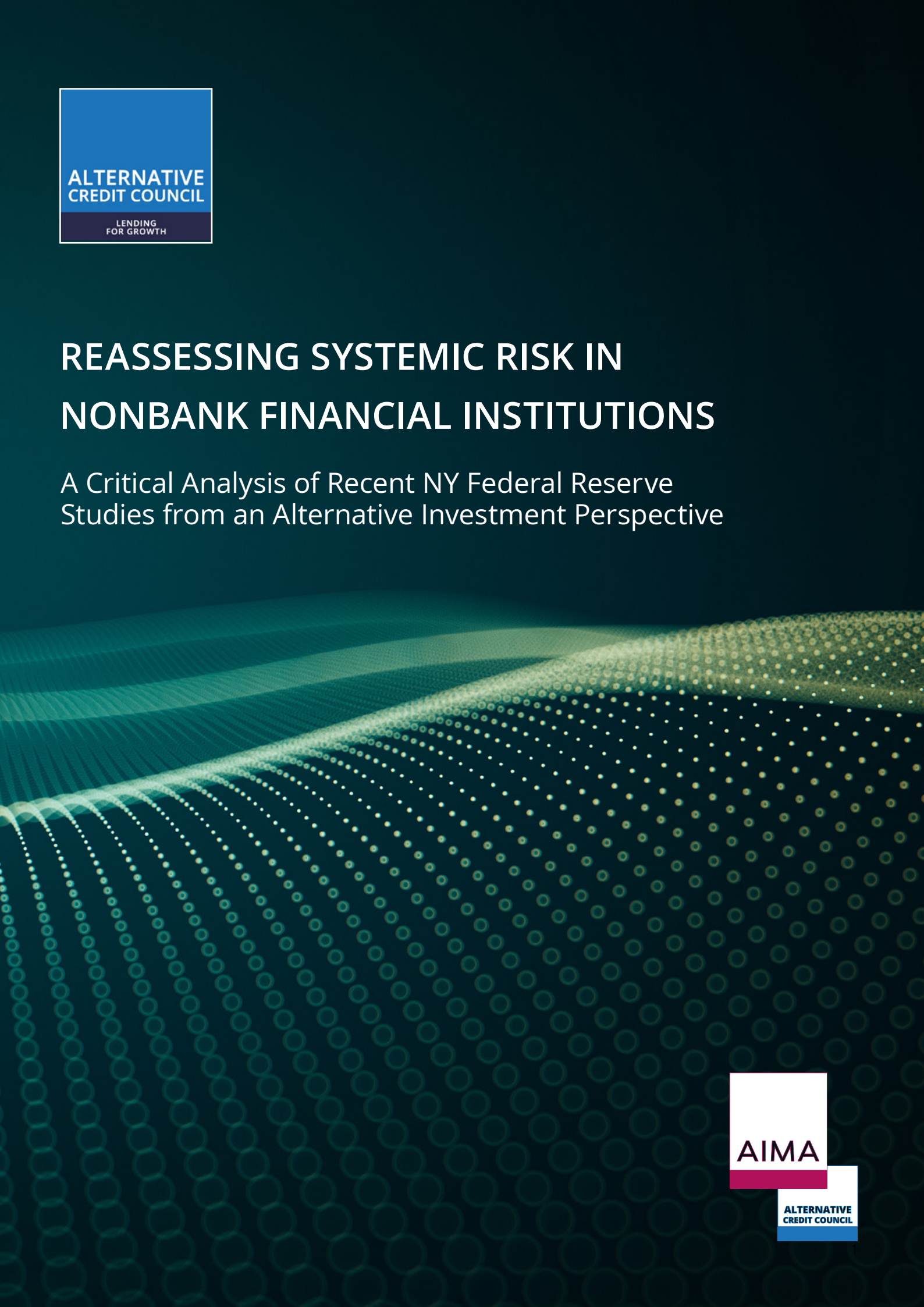
ALTERNATIVE CREDIT COUNCIL

LENDING FOR GROWTH

REASSESSING SYSTEMIC RISK IN NONBANK FINANCIAL INSTITUTIONS

A Critical Analysis of Recent NY Federal Reserve Studies from an Alternative Investment Perspective



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ALTERNATIVE CREDIT COUNCIL

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INTRODUCTION

In recent years, the rapid growth of nonbank financial institutions (NBFIs) has attracted increasing attention from regulators, policymakers, and academics. Private credit funds, in particular, have emerged as a significant source of funding for the business sector. However, their impressive growth has also raised concerns among some regulators about the risks that these entities might pose to the broader financial system. We believe these concerns are misplaced.

The Federal Reserve Bank of New York, in particular, has recently issued three posts on its Liberty Street Economics webpage[1] regarding the potential systemic risk posed by the growth of nonbank financial institutions ("NBFIs"). All three notes are based on a recent publication, "Where do Banks End and NBFIs Begin?" ("WBE-NBFI"),[2] which was authored by two NYU professors, Viral Acharya and Bruce Tuckman, together with NY Fed economist Nicola Cetorelli.

At a high level, these publications can be summarized into three separate parts. First, the authors articulate a "transformation thesis" to explain the rapid rise of NBFIs and develop a theoretical justification for greater federal supervision and regulation of NBFIs. In support of this thesis, they rely on new Federal Reserve call report data and a few previous research papers to claim that NBFIs pose systemic risk via both their counterparty credit exposure and the asset sale transmission channels.

The authors propose a variety of policy options, including supervisor-led stress testing of banks and NBFIs, central bank provision of contingent liquidity facilities, required use of liquidity options whereby banks and NBFIs could borrow funds or purchase options at pre-determined haircuts and rates, Federal Reserve regulation of any NBFI that has access to a lender of last resort facility, and designation of individual NBFIs as systemically important.

Our analysis is written primarily from the perspective of private credit funds, but it will also touch upon other NBFI business models where relevant. By doing so, we hope to contribute to a more nuanced understanding of the diverse NBFI landscape and the varying degrees of risk associated with different business models in the financial sector.

1 Federal Reserve Bank of New York. *"Liberty Street Economics."* Liberty Street Economics, https://libertystreeteconomics.newyorkfed.org/. Accessed 21 July 2024.

2 Acharya, Viral V., Nicola Cetorelli, and Bruce Tuckman. "Where Do Banks End and NBFIs Begin?" ("WBE-NBFI paper") NBER Working Paper No. 32316, National Bureau of Economic Research, 2024. https://www.nber.org/papers/w32316.

EXECUTIVE SUMMARY

While the NY Fed studies offer some new insights, regarding the various points at which banks have financial connections with NBFIs, we have concerns regarding the applicability of their methodologies, assumptions, and conclusions with respect to all NBFIs, especially private credit.

As an initial matter, the authors combine new bank data on twelve different types of NBFIs and use that combined data as the basis for their transformation thesis that NBFIs heavily rely on the relative stability of banks for funding and liquidity. However, this conflation of data from twelve different types of NBFIs does not accurately reflect the actual business model and comparative advantages of private credit or many other NBFIs. Private credit's better matching of long-term assets and liabilities, limited use of leverage, and variety of liquidity risk management tools make it a safe and stable lender to the real economy. More importantly, we demonstrate how bank lending has been transformed in a complementary way, as a bank's more senior, secured lending to private credit is safer for the bank compared to direct lending to companies. In our view, this transformation does not result in dependence on banks but better reflects the comparative advantages of private credit and other NBFIs and their complementary interactions with banks.

Regarding the analysis of the two systemic risk channels of counterparty exposure and the fire sale of assets, the new data, rather than justifying greater regulation of NBFIs, instead points to the ongoing changes being made by bank regulators to better measure counterparty credit and liquidity risk exposures as well as risk management models.[3]

Regarding macroprudential concerns about the ability to lend during periods of market stress, private credit has proven itself a source of systemic stability, as demonstrated by its greater ability than banks to continue lending to the real economy during the 2007-08 and COVID-19 crises.[4]

Lastly, we reviewed the ex-ante and state-contingent policy options raised by the authors and have provided responses based on the paper's articulation of the private credit business model and point out why it is premature to make policy recommendations without a better understanding of the various NBFI business models. We hope that our alternative views on the complementary rather than dependent relationship with banks will spur greater analysis of the regulatory implications of the unique funding structure, use of leverage and liquidity management tools of private credit. We also encourage a more discrete analysis of how the differences between NBFI business models affect the twin systemic risk transmission channels of counterparty exposure and asset sales, which would provide a better macroprudential perspective prior to recommending any specific policy proposals.

3 As discussed in more detail later, the Basel Committee, Bank of England and the Fed are actively working with banks to update their counterparty credit and liquidity risk management frameworks.

4 *See generally*, Loumioti, Maria, Direct Lending: The Determinants, Characteristics and Performance of Direct Loans (May 30, 2022). Available at SSRN: https://ssrn.com/abstract=3450841. In contrast, bank syndicated lending volume in the fourth quarter of 2008 was 79% lower than its peak in 2Q2007: see Ivashina, Victoria, and David Scharfstein. "Bank Lending During the Financial Crisis of 2008". Journal of Financial Economics, vol. 97, no. 3, 2010, pp. 319-338.

KEY ELEMENTS OF THE *WHERE DO BANKS END AND NONBANKS BEGIN?* PAPER

The *Where Do Banks End and NBFIs Begin?* (WBE-NBFI) paper asserts that the growth of NBFIs is largely due to increased banking regulation followed by an endogenous transformation of credit intermediation from banks to NBFIs. A key assumption in their thesis is that heightened supervision and higher capital requirements for banks create an uneven regulatory landscape and it is the principal cause for the growth of NBFIs rather than a natural progression based on the inherent differences between banks and NBFIs. Another important feature of the transformation thesis is that NBFIs' growth and stability are not viable without banks because they are so reliant on banks for initial funding and as a source of liquidity during periods of market stress.

The WBE-NBFI paper analyzes recently updated bank reporting and new Federal Reserve flow of funds data that provides more granular details on the levels of bank funding and lines of credit to NBFIs.[5] For instance, bank term loans to NBFIs increased from about $125 billion in 2013 to just over $300 billion in 2023[6] and lines of credit to NBFIs increased from $500 billion to around $1.5 trillion.[7] Based on this data, the authors correctly point out that banks have significantly grown in their level and variety of connections with a wide array of NBFIs. However, the authors fail to specify that of the twelve types of NBFIs studied, only three rely on banks for more than 10% of their funding.[8] In addition, as discussed in more detail on page 15, this transformation from bank lending directly to the real economy to indirect lending via NBFIs results in safer and more diversified senior bank lending to NBFIs. Private credit provides safer financing to the real economy due to its more stable, less leveraged funding structure and liquidity risk management tools.

Regulators already have the appropriate bank regulatory framework in place to address any new concerns they may have about a bank's level of counterparty credit risk. All US banks deemed systemically important (i.e., those with greater than $50 billion in assets) undergo additional stress testing annually to measure their counterparty credit risk. While this research may point to a need for adjusting banks' measurement

5 The Federal Reserve's Enhanced Financial Accounts (EFA) are an extension and improvement of their traditional Flow of Funds data. The EFA initiative aims to provide more granular, detailed, and timely data on financial transactions and positions. See the Appendix for more data on the twelve different NBFIs included in the EFA that are analyzed in the WBE-NBFI paper, which includes ABS issuers, broker-dealers, equity REITS, finance companies, GSEs, life insurers, money market funds, mortgage REITs, mutual funds, property casualty companies, pensions, and other financial businesses.

6 WBE-NBFI paper at 35.

7 *Id.* at 36.

8 The matrix of liability-dependencies in Figure 4B of WBE-NBFI indicates that of the twelve different types of NBFIs, only three NBFIs rely on banks for 15% or more of their funding. Banks hold 35% of GSE's liabilities, 25% of equity REITs, and 15% of finance companies. Broker-dealers are also at 25%, but a significant amount of those are part of a bank holding company. Banks only hold 10% of ABS funding. *Id.* at 39.

of counterparty credit risk with its NBFI counterparties, that risk can and should be managed via bank regulation or changes in bank supervision. In fact, the Basel Committee recently issued a consultation to modernize its standards for the regulation of banks' counterparty credit risk management, particularly with respect to their NBFI counterparty risks.[9] The Federal Reserve also recently issued a proposal that would require banks to provide significantly more granular data on banks' lending to NBFIs.[10] In the UK, the Bank of England has already carried out a thematic review of British banks' exposure to certain NBFIs and has identified that they "need to better employ group-wide risk data aggregation tools, stress testing capabilities and consolidated management information reporting processes."[11]

Besides counterparty exposure, the other systemic risk transmission channel discussed in the WBE-NBFI paper relates to the fire sale of assets. The authors principally rely on two prior studies to support their claim that NBFIs, as individual institutions, may pose systemic risk via rapid asset sales. In 2012, NYU professor Viral Achary and others published "Measuring Systemic Risk,"[12] which attempts to estimate the potential systemic risk posed by an NBFI. The authors developed an SRISK measure that uses a theoretical model to estimate the undercapitalization of a nonbank during periods of market stress and then assume that the NBFI will engage in a fire sale of assets to recapitalize itself. The SRISK model starts by estimating an NBFI's projected market capitalization if equity markets decline by 40%, then subtracts from that a prudent market capitalization, which is defined as 8% of total assets. It then assumes the NBFI would immediately engage in a fire sale of assets to improve its market capitalization.

As pointed out in a research paper[13] by Hal Scott and Kristin Ricci, at best, the SRISK method only measures the potential vulnerability of nonbanks to market stress. It does not measure the potential for the transmission of risk because nonbanks have many options besides asset sales to respond to periods of temporary market fluctuations. The SRISK measure also conflates market capitalization with prudential capital requirements, but they are not the same. More generally, SRISK attempts to apply bank prudential requirements and supervision as the model for how nonbanks react to market stress periods. The analysis also overlooks the unique funding mechanisms for nonbanks, their varying levels of leverage and maturity mismatch, and the liquidity risk management options that vary significantly among different types of NBFIs.

Life insurers provide a good example of how NBFIs respond differently than banks to financial market cycles and illustrate the limitations of the SRISK methodology. An inherent difference between the bank and insurance business models is that insurers receive significant cash inflows on a recurring basis from insureds' premium payments,

9 Basel Committee on Banking Supervision. Consultative Document: Guidelines for Counterparty Credit Risk Management. 30 April 2024. https://www.bis.org/bcbs/publ/d574.htm

10 FR Y-14A/Q/M, 89 Fed. Reg. 52,042 (June 21, 2024) "The FR Y–14 report currently does not require firms to report certain financial information (such as total assets, total liabilities, short-term debt or net income) on NDFI [non-depository financial institution] obligors, which results in a material data gap." https://www.federalregister.gov/documents/2024/06/21/2024-13798/proposed-agency-information-collection-activities-comment-request.

11 Bank of England. "Thematic Review of Private Equity-Related Financing Activities." *Prudential Regulation Authority*, 2024, https://www.bankofengland.co.uk/-/media/boe/files/prudential-regulation/letter/2024/thematic-review-of-private-equity-related-financing-activities.pdf.

12 Acharya, Viral V., Lasse H. Pedersen, Thomas Philippon, and Matthew Richardson. "Measuring Systemic Risk." May 2010. https://pages.stern.nyu.edu/~tphilipp/papers/MeasuringSystemicRisk.pdf.

13 Scott, Hal S., Kristin Ricci, and Aaron Sarfatti. "SRISK as a Measure of Systemic Risk for Insurers: Oversimplified and Inappropriate." Harvard Law School, 12 Sept. 2016. Social Science Research Network, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2837784.

which are invested on a long-term basis to meet long-term liabilities. As a result, life insurers generally are able to hold their investments to maturity. In practice, this enables them to be buyers during short-term market dislocations, a reality that has been empirically established in various studies, including a government-led study by the European Systemic Risk Board.[14] That paper analyzed market data from 2005 to 2014 and found that insurance companies were counter-cyclical investors during the 2008 Great Financial Crisis and the European sovereign debt crisis. While banks were forced to procyclically sell assets, insurers were able to buy assets with depressed prices during market dips and enhance their long-term investment gains.

The second study that the WBE-NBFI paper relies on is a recent analysis of the potential vulnerability of banking institutions to fire sales of assets in the NBFI sector. A 2023 Cetorelli paper asserts that bank exposures to the fire sale of assets are much greater than conventional thinking because of the network effect of selling commonly held assets between banks and NBFIs, which, in their view, justifies "treating nonbank financial institutions as one organic whole for monitoring purposes."[15] That paper attempts to measure both direct, first-round spillovers when an NBFI engages in a fire sale of assets and indirect, second-round spillovers when the first round induces other NBFIs to sell the same assets. This paper makes several key assumptions, including that the price impact will be directly proportional to the number of assets sold and that all NBFIs will react similarly whenever a fire sale of assets occurs.

However, NBFIs, in practice, will react differently based on their different funding structure and business models. For instance, a single hedge fund manager may have many different funds, each with their own funding profile and strategy. Whether that fund is closed or open-ended and whether it employs an equity long/short, global macro, quantitative or event-driven strategy will significantly impact how it might react to a fire sale of assets. As noted above, there is empirical evidence that some NBFIs with longer-term liabilities may be natural buyers when others are selling. The same is true for funds that employ a distressed securities strategy, where they invest in the debt or equity of a distressed company. In the case of a multimanager hedge fund vehicle, it will deploy multiple portfolio managers, each with distinct investment strategies and asset holdings, under a single umbrella fund. This structure allows the fund to diversify its investment approaches and reduce the overall risk while aiming for consistent returns across different market environments. While the Cetorelli paper does provide a better quantification of the network effect that asset sales can have, the whole point of the Fed's new stress testing exercise is to measure banks' exposure to market risks—not just to NBFIs but to all types of holders of the relevant assets. The fact that market sales expose banks to a fire sale of assets is not a justification for additional regulation of NBFIs.

Finally, and most importantly, the fire sale channel appears to be largely irrelevant for the private credit industry as loans originated by the private credit industry generally do not trade. These are bespoke, bilaterally originated instruments that are intended and are indeed held to maturity by private credit funds. This is distinguish from the broadly syndicated loan market, which is traded and relatively more liquid than the bilateral private credit market.

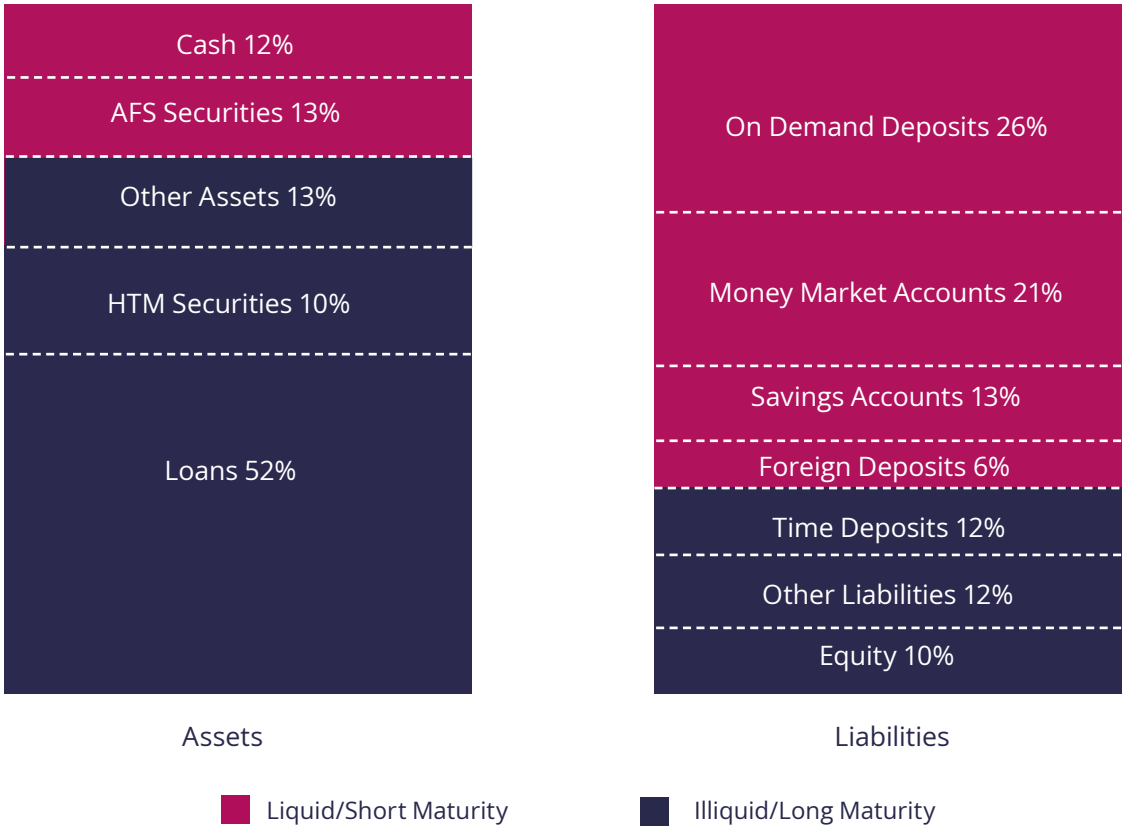
14 Timmer, Yannick. Cyclical Investment Behavior across Financial Institutions. Working Paper no. 77, European Systemic Risk Board, July 2017. https://papers.ssrn.com/sol3/peprs.cfm?abstract_id=2696647#

15 Cetorelli, Nicola, Mattia Landoni, and Lina Lu. Non-Bank Financial Institutions and Banks' Fire-Sale Vulnerabilities. Federal Reserve Bank of New York Staff Report No. 1057, March 2023.

DISTINCT NATURE OF PRIVATE CREDIT AND COMPARISON BANKS

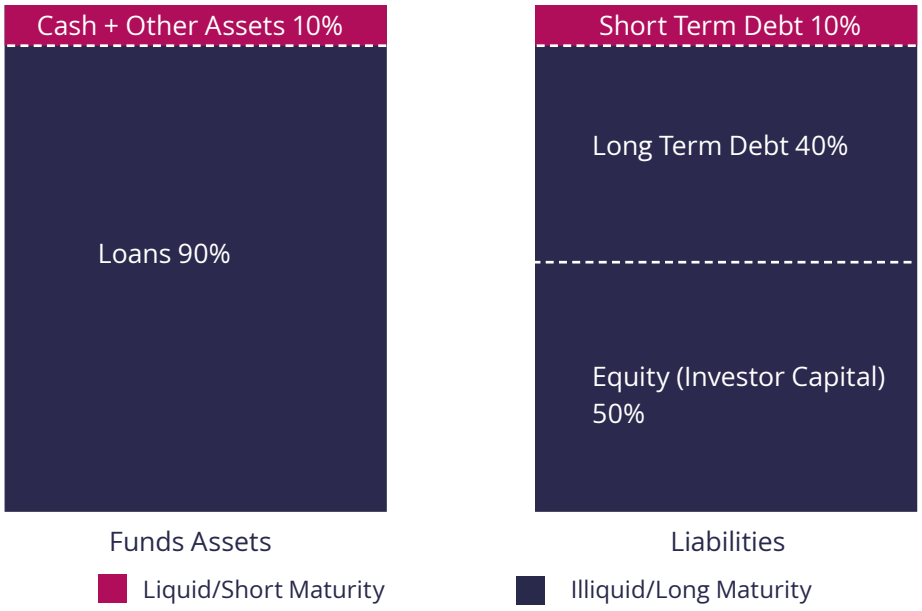
Private funds and investment firms, particularly those engaged in private credit, operate under a fundamentally different model than banks. At their core, banks primarily fund themselves through demand deposits, which depositors can withdraw at any time. Banks take these short-term liabilities and convert them into long-term assets via loans and investments. Under the fractional reserve system, banks are by their very nature extremely levered, setting aside only a small quantity of reserves against their total outstanding deposit base. Banks are also susceptible to runs as the sequential nature of deposit redemptions creates a powerful first-mover advantage. Banks also typically increase their leverage via bond issuances. Because of this simultaneous maturity transformation and leveraging, banks are inherently required to manage a fundamental liquidity challenge, a requirement that has attracted significant regulatory and government oversight.

Figure 1. A typical Bank Balance Sheet



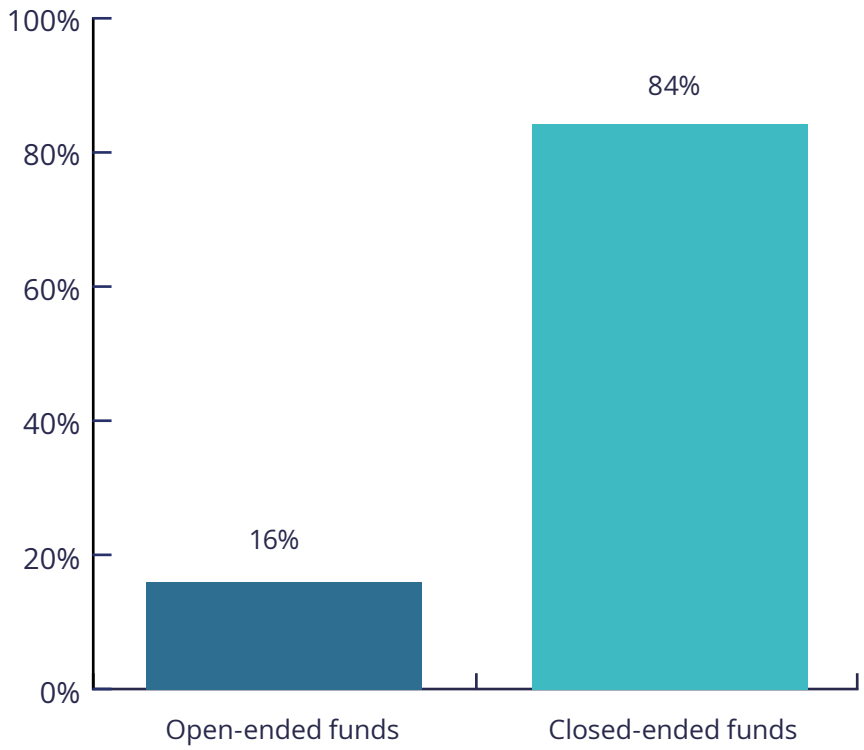
To mitigate risks and maintain stability, bank regulators over centuries have implemented a range of extensive prudential requirements, including deposit insurance to reduce the likelihood of bank runs, lender-of-last resort facilities to support banks facing temporary liquidity crises, minimum capital requirements to absorb potential losses, short-term liquidity requirements to satisfy short-term obligations during periods of market stress, requirements to maintain diversified and contingent funding sources, and enhanced requirements for banks that are so systemically important that a single failure would destabilize the entire financial system. Despite federal deposit insurance and access to Federal Reserve lender of last resort facilities, recent history has shown that banks remain subject to run risk at a level that threatens the entire system, as demonstrated by the recent collapse of Silicon Valley Bank and the regional bank crisis.

Figure 2. A typical Private Credit Fund Balance Sheet



On the other hand, the private credit business model is generally funded by long-term commitments from institutional investors, which are then invested in similarly long-term investments. Most private credit funds are structured as closed-end vehicles with long-term commitments, typically 5-7 years, which significantly help private credit firms manage liquidity expectations. In closed-end funds, investors commit capital upfront, but such commitments are drawn down over time as investments are made. As discussed below, some private credit funds are structured as open-end funds, but in such cases, the investor liquidity provisions are typically designed to match the liquidity needs of the fund's portfolio, preventing the possibility of a run (see Figure 2 and 3).

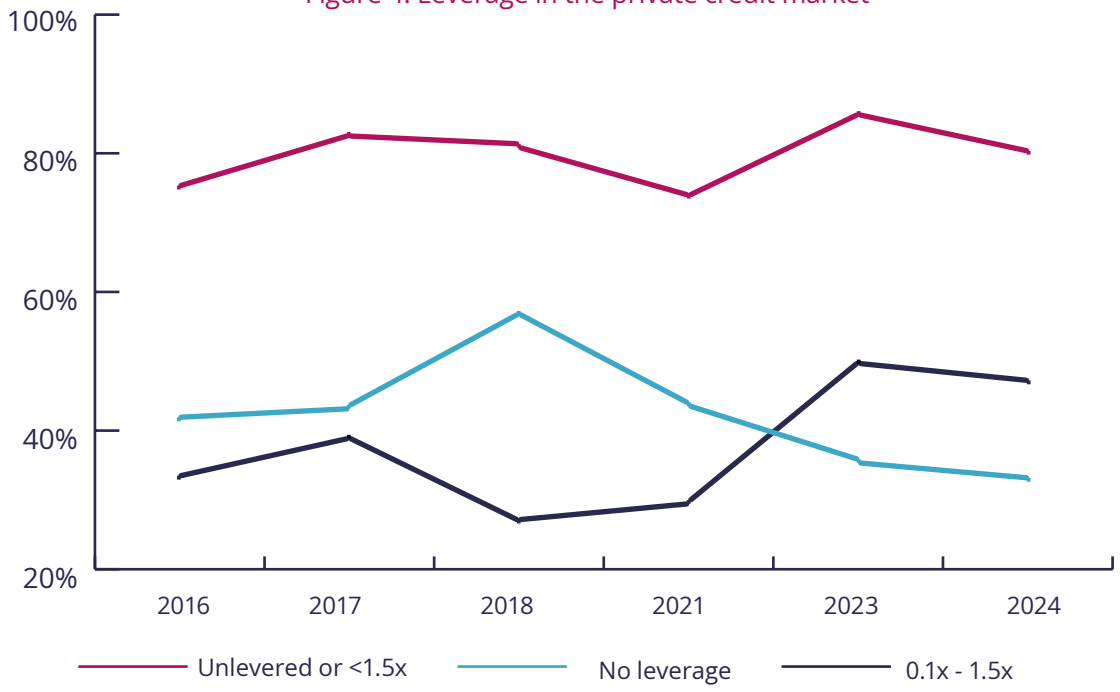
Figure 3. Private Credit assets managed within commingled structures - estimated percentage of assets managed within open and closed-end fund structures



As illustrated in Figure 4, below, private credit firms generally use little to no leverage, with the vast majority of private credit firms either using no leverage or at levels below a 1.5 debt-to-equity ratio.[16]

Similarly, business development companies, while statutorily limited to 2:1 leverage, typically operate well below that threshold.[17]

Figure 4. Leverage in the private credit market



Private credit funds do not engage in significant maturity transformation, a key source of systemic risk in the banking sector. Instead, they often match the duration of their investments with their funding, reducing the risk of sudden liquidity crunches that could trigger a cascade of counterparty defaults.

To the extent that private credit firms employ an open-ended fund model, they do so in a limited way with significant restrictions and liquidity risk management tools, which may include some or all of the following:

- **Lock-up periods**: These prevent redemptions for a pre-determined period, typically at least a year.
- **Ex-ante investor gates**: A pre-determined limitation on the amount of invested capital a given investor can redeem at one time.
- **Ex-ante fund level gates:** A pre-determined limitation on the aggregate amount that all investors in a given fund can redeem.
- **Prescribed redemption windows**: Allows investors to only redeem at pre-determined intervals, typically semi-annually.

16 For more details on the limited use of leverage by private credit firms, see Financing the Economy 2023. Alternative Credit Council, September 2023. https://www.aima.org/compass/insights/private-credit/financing-the-economy-2023.html

17 For an up-to-date listing of the most to least leveraged BDCs, see "Most Leveraged BDCs." BDC Investor, https://www.bdcinvestor.com/screens/most-leveraged-bdcs/. Accessed August 2, 2024.

- **Notice period**: Requires that investors provide minimum notice for redemption requests, typically at least 90 days.
- **Slow pay provisions**: Allows segregation of an investor's share of the asset from the fund and returning it in line with the natural maturity of the asset.

While the NY Fed and others have pointed out that not as much data about NBFIs is publicly available for banks and their regulators, the SEC as the primary regulator of private credit fund managers, has very significant insights via Form PF. Indeed, the SEC recently stated that Form PF "enhance[s] the Commission's and FSOC's understanding of the private fund industry as well as the potential systemic risk posed by the industry and its individual participants."[18] Form PF provides detailed information on fund size, total AUM, the types and amount of leverage, composition of investors, investment strategies, performance and risk metrics, counterparty exposures, liquidity profile, portfolio concentrations, and detailed compliance and operational information. In addition, the SEC in 2023 required private funds to provide updates to the SEC within 72 hours of any significant investment, margin, liquidity or counterparty developments. More generally, the SEC regulates private credit funds primarily through the Investment Advisers Act of 1940. Such funds must adhere to a variety of reporting and compliance requirements, including regular reporting, disclosure of conflicts of interest, and adherence to fiduciary duties. The SEC monitors their use of leverage and risk management practices to ensure financial stability and the protection of investors.

18 SEC Press Release "SEC Adopts Amendments to Enhance Private Fund Reporting" https://www.sec.gov/newsroom/press-releases/2024-17 ("Among other things, the amendments to Form PF will enhance how large hedge fund advisers report investment exposures, borrowing and counterparty exposure, market factor effects, currency exposure, turnover, country and industry exposure, central clearing counterparty reporting, risk metrics, investment performance by strategy, portfolio liquidity, and financing and investor liquidity to provide better insight into the operations and strategies of these funds and their advisers and improve data quality and comparability.")

HOW PRIVATE CREDIT FUNDS INTERACT WITH BANKS

The private credit fund finance ecosystem can be roughly divided into three different areas: subscription finance, asset-backed portfolio finance, and asset-level finance. Banks play an important, supportive role in all three, but they are not necessarily the only option that private credit funds have. For example, many private credit funds successfully issue bonds or obtain financing from other nonbanks. While these types of facilities are certainly useful to private credit funds, the private credit fund business model is not inherently dependent on any one of them. Indeed, a substantial portion of private credit funds operate without them.

A subscription facility is a typical financing option for investment funds in their early stages when they have yet to acquire assets or make investments. At this point, most or all of the fund's capital commitments remain uncalled, meaning the fund has not yet requested the committed capital from its investors.

This type of financing typically takes the form of a revolving credit facility, usually from a bank, where the fund can borrow and repay multiple times up to a certain limit. The borrowing base for this facility is entirely secured by the uncalled capital commitments of the fund's investors. The facility's attractiveness lies in its ability to provide immediate liquidity, allowing the fund to seize investment opportunities quickly without waiting for the slower process of capital calls from investors.

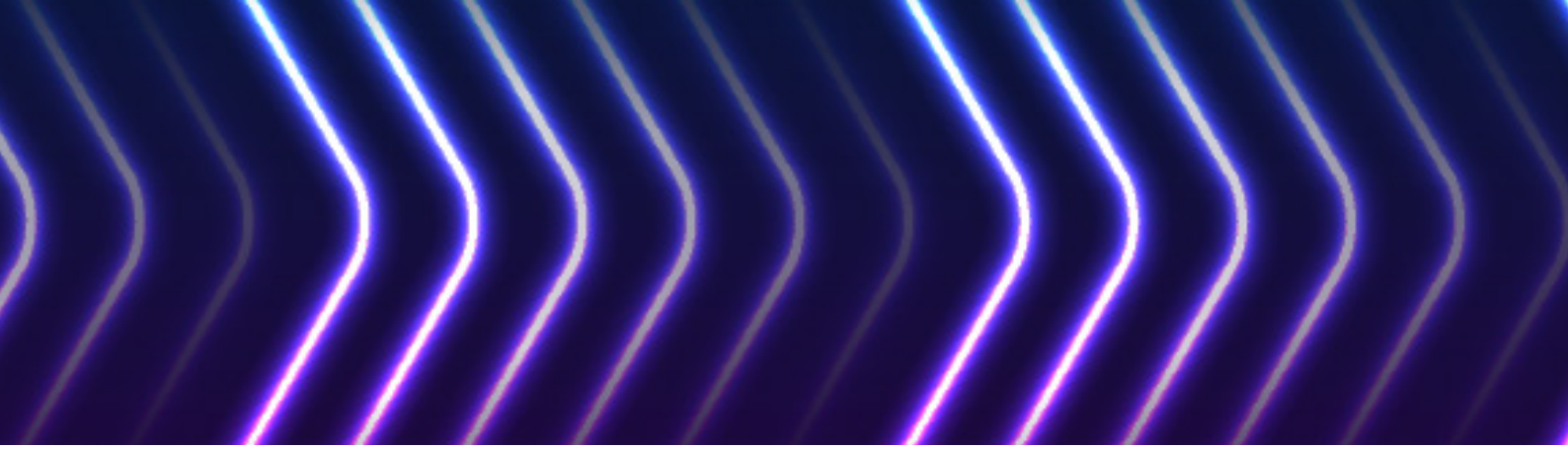
The key factor in determining the terms and availability of the subscription facility is the creditworthiness of the fund's investors. Because the facility is backed by these uncalled commitments, banks and lenders assess the financial strength and reliability of the investors[19] to ensure that the commitments will be honored when called upon. Given these investors tend to be large and creditworthy institutions such as pension funds and insurance companies, these facilities are among the least risky ways in which banks interact with private credit funds.

In addition to subscription lines, once there is a meaningful amount of assets in a fund, there are various other financing options available to private funds. One such option is asset-backed portfolio financing, also referred to as net asset value (NAV) financing. The bank loans to the funds are secured against the portfolio of underlying assets (in the case of private credit – other loans) of the fund. This type of financing can support a wide range of the fund's operations and investment strategies, including add-on investments, continuation funds, working capital, or distributions.

19 While banks must, of course, do the appropriate amount of due diligence, the limited partners of private credit firms are typically pension funds, endowments, sovereign wealth funds, and insurance companies that are sophisticated investors.

As mentioned above, private credit firms have other financing options, such as traditional securitization or asset-backed financing facilities via special-purpose vehicles or issuance of bonds that may be less dependent upon banks.

Through these services, banks support the operational efficiency of private funds, enhance their investment capacity, and enable them to better manage cash flows. These arrangements require careful risk management, particularly in assessing the credit risk associated with the fund's investors and the underlying assets. While on the one hand banks and their supervisors are in the best position to assess and monitor their credit extension risk management, private credit firms often have alternative solutions to meet their financing needs.



IMPLICATIONS FOR FINANCIAL REGULATION

Having reviewed some of the disconnects between the data and analysis sections of the WBE-NBFI paper, this brings to light some significant errors in the authors' implications for financial regulation. Despite what is perceived as an extremely onerous and detailed regulatory regime, an empirical analysis of the banking and private credit business models does not provide any evidence of regulatory arbitrage. If it did, we would observe higher leverage, greater maturity transformation or other signs of increased risk. Instead, we see the exact opposite with respect to crucial financial stability metrics such as lower liquidity risk and less maturity mismatches and leverage.

If one were to go through the intellectual exercise of applying the bank regulatory framework around capital, liquidity and leverage to private credit funds, one would discover that it is largely irrelevant because it would not in any meaningful way provide for a restrictive or binding framework compared to what we see in the market today. Bank liquidity ratios would be irrelevant because of better matching of asset and liability duration along with the significantly greater liquidity risk management tools available to private credit. Capital requirements would be irrelevant because private credit funds are extremely well-capitalized. A good illustration of this point is a 2024 study of business development companies (BDCs) that found they have average capital ratios of 33% and excess capital in severely stressed scenarios.[20] The same goes for leverage. Private credit firms do not come close to bank levels of leverage. Recovery and resolution plans are irrelevant because hundreds, if not thousands, of funds get liquidated every year without a problem and capital is returned to investors.

Regarding the potential for systemic risk, the WBE-NBFI paper does not acknowledge the important fact that banks play several significant roles with consumers as well as nonfinancial businesses, such that even a temporary interruption of services would have a significant negative impact on the real economy. Banks provide essential safekeeping, deposit-taking, consumer and small-business lending, corporate cash management, payments intermediation and other services that are critical to the proper functioning of the Main Street economy. Similarly, financial markets rely on the money center banks for brokerage and custody services in primary and derivative markets.

On the other hand, private credit funds and other investment firms typically have more limited and straightforward counterparty relationships. Their primary counterparties are often their investors, borrowers, and perhaps a small number of prime brokers or custodians. Thus, while banks are inherently systemic given their deep connections with

20 Chernenko, Sergey, Robert Ialenti, and David Scharfstein. "Bank Capital and the Growth of Private Credit." https://www.sergeychernenko.com/. This paper examined whether regulatory arbitrage can explain the growth of BDCs and found that private credit has not grown primarily because nonbank financial intermediaries have to hold less capital, but instead, banks find lending to middle-market lenders more attractive than direct middle-market lending.

nearly every aspect of the real economy and financial markets, private funds and other NBFIs have a much more limited and easily substitutable role. In the absence of this channel of potential systemic risk, counterparty exposure and the sale of assets are the only two theoretical ways that NBFIs could transmit systemic risk.

The WBE-NBFI paper fails to take into account the very different funding structures of the different types of NBFIs and their varied asset-liability management practices. Each NBFI business model has its own distinct risk profile and associated set of liquidity risk management tools. Exploring each goes well beyond the scope of this paper, but it should suffice to note that there are significant differences among the many types of NBFIs included in the WBE-NBFI paper, including ABS issuers, broker-dealers, equity REITs, finance companies, GSEs, life insurers, money market funds, mortgage REITs, mutual funds, property casualty companies, and pensions. As a result, the exact same investment activity can be significantly more or less prone to a fire sale of assets depending on the specific risk and liquidity risk management tools of each business model. Hence, the paper's implied assertion of "same activity, same regulation," should be adjusted to one of "the same kind of risks need the same regulatory outcome." This formulation would better consider the differences in the liability side of the private credit balance sheet as well as its existing regulatory regime, which is more appropriate for its actual risk profile. The WBE-NBFI paper's disregard for the regulatory frameworks tailored to each type of NBFI is a key weakness.

To its credit, the WBE-NBFI paper takes note of the Federal Reserve's 2023 Financial Stability Report, which found that the financial stability risks of private credit "are likely limited."[21] However, the paper claims that the report supports their transformation thesis due to its concern that in a future economic downturn, the private credit market may not be able to continue providing financing to firms that rely on private credit.[22] However, as noted above, this claim is not supported by the Fed's own flow of funds data, the historical experience of private credit increasing its lending during the COVID-19 crisis, or with the complementary nature of interactions between banks and private as we have outlined.

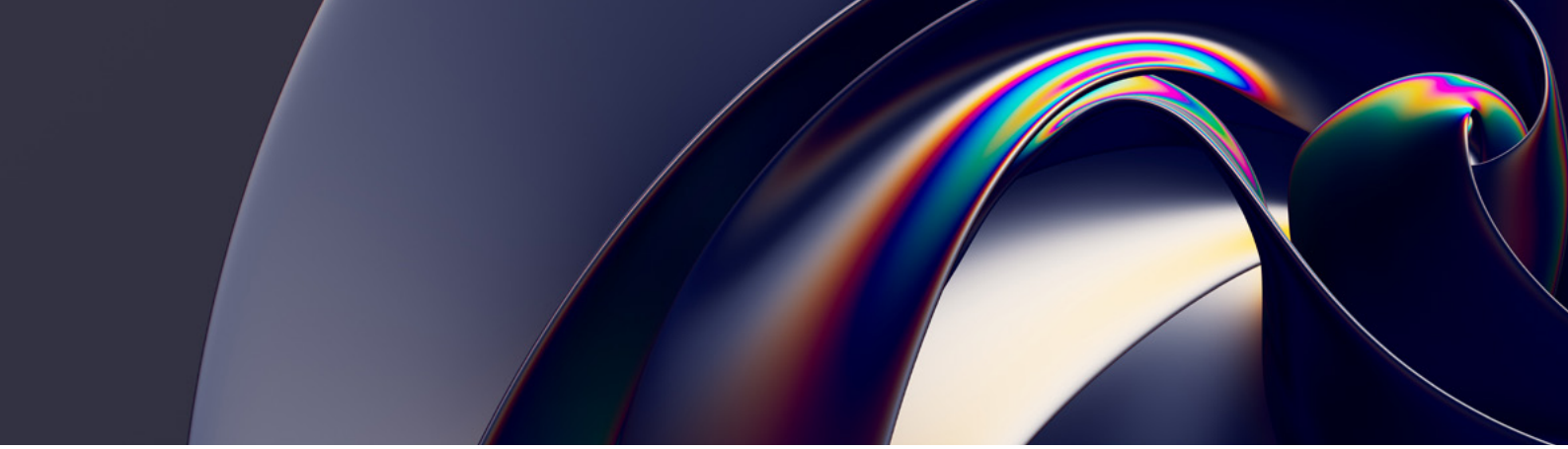
The authors of the WBE-NBFI paper fail to grapple with a key risk-mitigating implication of the more complementary view of the "transformation thesis": banks are now investing in the senior debt of NBFIs rather than directly in the assets held by the NBFIs. Because banks are investing in a diversified set of NBFIs at a more senior, secured debt position than they would have if they invested directly in the underlying assets, the banks' connections with NBFIs make them more stable.

In other words, bank lending has been transformed in a risk-reducing way, as it shifts from loans directly to individual and corporate borrowers (who are inherently subject to idiosyncratic and sectoral risk of default) to more senior, secured lending to NBFIs, which in turn are able to match the duration of their liabilities to their assets. For example, if a bank owns a portfolio of mortgages directly and an economic downturn prompts depositors to make larger withdrawals from the bank than expected, the bank may be forced to sell the mortgages at temporarily low market prices in order to fund depositor withdrawals.

21 Federal Reserve Board, 2023 May Financial Stability Report: Purpose and Framework, https://www.federalreserve.gov/publications/files/financial-stability-report-20230508.pdf

22 WBE-NBFI paper at 12.

If instead, the bank has invested in the senior debt of a life insurance company, which in turn holds the portfolio of mortgages, the bank's investment is more stable because the life insurance company can match the duration of long-term mortgages to its long-term life insurance policies and avoid the need to sell the mortgages at a temporarily low market price. This transformation results in safer, more senior investments for banks, while NBFIs provide safer financing to the real economy.



THE THREE NY FED LIBERTY STREET BLOG POSTS

Acharya et al. add some corollary principles of their NBFI transformation thesis in the first NY Liberty Steet Economics blog post: "Nonbanks Are Growing but Their Growth Is Heavily Supported by Banks:"

- NBFI intermediation "involves significant liquidity and funding risk."
- Managing these risks requires access to stable short-term funding and contingent sources of liquidity (especially during periods of stress).
- The market sources of financing that NBFIs rely on are cyclical and fragile.
- "In contrast, modern banks are considered relatively stable intermediaries" given their deposit franchise and access to the safety net of deposit insurance and LOLR facilities.
- "Lacking the inherent funding and liquidity advantages of banks, NBFI activity may not be viable ... unless backed up by routine as well as emergency liquidity support from banks."[23]

In our view, these assertions are not accurate with respect to private credit nor many of the other twelve NBFIs. The issue is lumping together all NBFIs and not distinguishing their divergent funding structures and liquidity profiles which leads to their assertion that private credit is less stable and, therefore, reliant upon bank funding for stability purposes. As already demonstrated, this is certainly not the case for private credit, and in fact, the authors have completely reversed the liquidity and funding risk problem. It is the bank model that inherently involves maturity transformation due to its short-term funding, fractional reserve, and longer-term lending model. In contrast, private credit is not funded by demand deposits nor utilizes fractional reserve lending and, therefore, possesses less inherent leverage than banking. Unlike banks, private credit generally has significantly less or no maturity transformation and has more liquidity risk management options. Furthermore, the private credit business model does not rely upon government support such as deposit insurance or access to the Fed's lender of last resort facilities.

As illustrated in Figure 4, page 11, our annual private credit surveys have consistently shown that between 33% and 50% of direct lending funds operate on an unlevered basis, which demonstrates that the private credit business model is not inherently dependent upon banks for initial funding. Some funds may choose to utilize bank funding to reach a preferred amount of leverage, but that is a different matter.

23 Acharya, Viral V., Nicola Cetorelli, and Bruce Tuckman. "Nonbanks Are Growing but Their Growth Is Heavily Supported by Banks." *Liberty Street Economics*, Federal Reserve Bank of New York, 24 June 2024, https://libertystreeteconomics.newyorkfed.org/2024/06/nonbanks-are-growing-but-their-growth-is-heavily-supported-by-banks/.

From a systemic risk perspective, the bank extending that credit does so in a senior-secured manner to a private credit firm's fund, which is safer than directly lending to a company.

Another example of the lack of distinction between various NBFI funding models can be found in the second Liberty Street blog, "Banks and Nonbanks Are Not Separate, but Interwoven," where Acharya, Cetorelli, and Tuckman assert:

> Short-term funding is needed for various credit products such as securitization, financing acquisitions, and mortgage servicing. These activities used to be provided by banks but are now dominated by NBFIs, who nevertheless receive funding from banks through direct loans, warehouse financing, credit lines, and commercial paper. [24]

At several points, Acharya et al. describe the relationship between banks and NBFIs as complementary, but this view is not internally consistent with their other assertions that NBFIs are completely dependent on banks for funding and liquidity. A better understanding of complementarity is that NBFIs are better suited for certain aspects of financing the real sector but can operate in a more effective manner using bank financing in certain cases—not in a co-dependent way. An optimal use of bank lending where it is more efficient should not be considered necessary funding.

In the third Liberty Street installment, "The Growing Risk of Spillovers and Spillbacks in the Bank NBFI Nexus," Acharya et al. make a number of questionable assertions about the potential of NBFI systemic risk. That paper cites the '07 - '08 GFC and the COVID crisis as examples where:

> The demands for liquidity from NBFIs queue up at banks and then at the official sector. Effectively, bank-NBFI dependencies turn into vectors of shock transmission and amplification, forcing authorities to intervene and to do so en masse.[25]

As pointed out earlier and discussed in more detail in various Alternative Credit Council publications,[26] during 2007-08 and COVID-19, private credit was able to continue and even increase funding to the economy while banks scaled back their lending.

24 Acharya, Viral V., Nicola Cetorelli, and Bruce Tuckman. "Banks and Nonbanks Are Not Separate but Interwoven." *Liberty Street Economics*, Federal Reserve Bank of New York, 6 June 2024, https://libertystreeteconomics.newyorkfed.org/2024/06/banks-and-nonbanks-are-not-separate-but-interwoven/.

25 Acharya, Viral V., Nicola Cetorelli, and Bruce Tuckman. "The Growing Risk of Spillovers and Spillbacks in the Bank-NBFI Nexus." *Liberty Street Economics*, Federal Reserve Bank of New York, 12 June 2024, https://libertystreeteconomics.newyorkfed.org/2024/06/the-growing-risk-of-spillovers-and-spillbacks-in-the-bank-nbfi-nexus/.

26 See, Financing the Economy, 2022, which found that private credit funds in 2021 reported a 20% increase in lending volumes. Financing the Economy 2022. Alternative Credit Council, September 2022 at https://acc.aima.org/asset/2F5D6FD9%2DC4FE%2D4573%2D8046B0B51A48F231/. *See* also Kaura, Belle. "Private Credit Through the Pandemic and Beyond." Third Eye Capital, 20 Sept. 2021.

THE POLICY PROPOSALS IN THE *WHERE DO BANKS END* PAPER ARE UNNECESSARY AND WOULD DAMAGE THE REAL ECONOMY

The authors propose a variety of policy changes affecting NBFI regulation, which are discussed in detail below, but at a high level, many of the proposed policies misapprehend the role played by NBFIs and would eliminate the benefits and efficiencies that NBFIs can bring, which would damage the real economy.

Proposal 1: Regulators should undertake a holistic review to measure how interactions in markets and funding liquidity during periods of economic stress can amplify stress in banks and the larger financial system.

Response: A holistic review would be methodologically challenging because it would have to take into account the different business models of NBFIs, how they are currently regulated, and how different kinds of NBFIs would react to market stress differently than banks. This complex and resource-intensive analysis is unnecessary because the Federal Reserve's current annual stress testing already measures how banks would be impacted by stress in markets and their counterparties, including NBFI counterparties. Tweaks to that testing are significantly more likely to yield marginal benefits than attempting to conduct a holistic review of all NBFIs. Such tweaks are already being considered by the Basel Committee.

Proposal 2: Regulators should undertake supervision or stress tests of NBFIs.

Response: For the reasons stated above, however, the risk profiles of NBFIs are fundamentally different from banks, and designing bank-like supervision regimes or stress tests for different kinds of NBFIs would be complex and resource intensive while yielding no benefit. The current annual stress testing of systemically important banks already considers banks' interaction with counterparties (including NBFIs) when measuring the impact of adverse scenarios and is used to calibrate prudential requirements (e.g., stress capital buffers). Creating a whole new supervisory/stress testing function is less likely to improve the results of such tests than assessing and revising the already-existing stress testing methodologies if necessary.

Proposal 3: Create Committed Liquidity Facilities (CLFs), whereby banks would post collateral at central banks so that, in a future crisis, they could borrow funds at a pre-determined haircut and rate. In pricing the haircuts, banks would be incentivized to lend directly to corporations and penalized for lending to NBFIs.

Response: In practice, it would be very difficult, if not impossible, to implement pre-determined haircuts based on the individualized risk of each NBFI counterparty in a

manner that considers the different types and differences among business activities of NBFIs. Lending to NBFIs reduces such risk by allowing banks to take advantage of the diversification of assets offered by some NBFIs, such as CLOs. Penalizing relationships with NBFIs would also reduce the significant expansion in credit from NBFIs available to households and businesses. Specifically for private credit, it would be difficult for central banks to accept direct lending collateral given that their loans often do not have credit ratings or might be below investment grade. More importantly, penalizing bank lending to NBFIs conflicts with the fact that bank lending to private credit is safer than direct corporate lending. Why would central banks want to eliminate banks' significant equity cushion in the private credit fund that protects them? When they lend directly, they are first in line to lose money, so how is that going to make the banking system safe?

Proposal 4: Create a "pawnbroker for all seasons" central bank function, whereby all bank and NBFI short-term liabilities would be required to be collateralized at a central bank at "appropriate haircuts," which would be higher for lending to NBFIs on "unusual collateral."

Response: Expanding the traditional bank lender of last resort facility to NBFIs in such a permanent manner would create a risk that taxpayers will cover losses suffered by NBFIs and would be inconsistent with the business model of many NBFIs, which do not seek such taxpayer guarantees or rely on short-term funding. It would also be challenging to determine the appropriate haircut, especially for non-investment grade exposures. The haircuts could become so punitive that they are effectively unusable by the NBFI sector

Proposal 5: Create Federal Liquidity Options whereby banks and NBFIs would be able to purchase options on secured borrowing from a central bank at pre-determined haircuts and rates. The central bank would then commit not to provide ad hoc bailouts in a crisis in the hope that institutions would purchase sufficient options to internalize the cost of future bailouts.

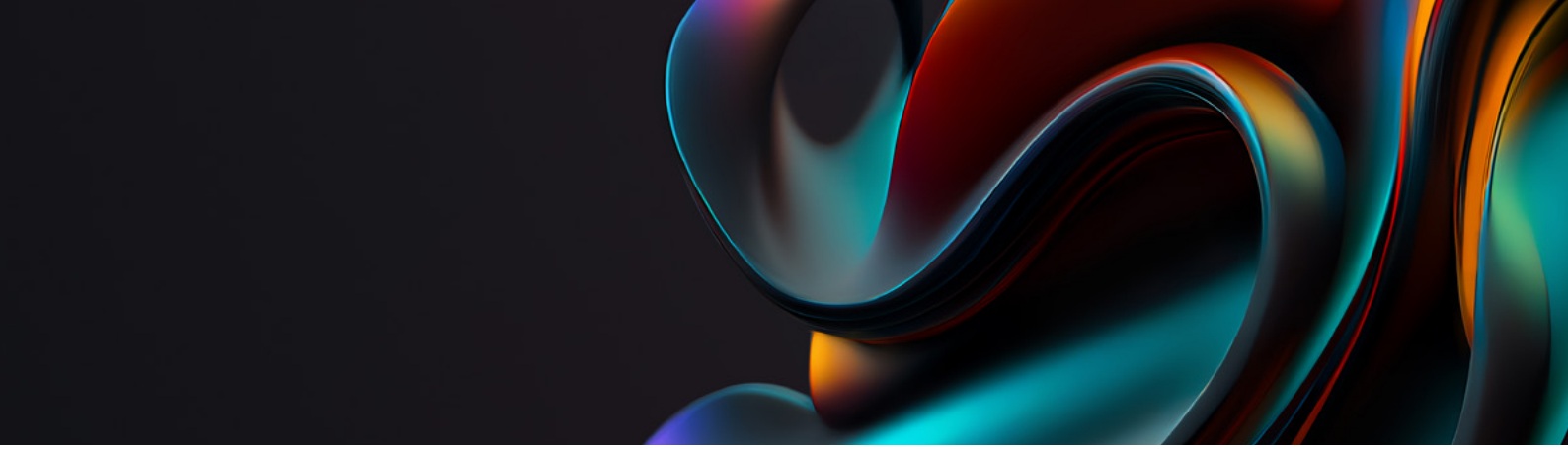
Response: Similar to the previous options, this proposal could require taxpayers to cover NBFI losses and would pose significant analytical and operational challenges for a central bank to establish (in advance) the appropriate market terms for the haircuts and interest rates applied to the collateral posted by the borrowing institution. Moral hazard could easily result, and there would be no guarantee that the government would not have to engage in a future bailout of systemically important institutions.

Proposal 6: Designate NBFIs as systemically important, and therefore subject to supervision by the Federal Reserve and subject to various "enhanced" prudential standards.

Response: The designation of an NBFI as a systemically important financial institution in the United States would result in the imposition of bank-centric prudential standards on NBFIs that are not consistent with their business models. Supervision by a prudential regulator unfamiliar with the NBFI's business lines and different regulatory frameworks would create significant market distortions and likely simply transfer relevant risks to the other NBFIs that were not designated as systemically important. It would also reduce the ability of the NBFI sector to absorb some of the risks that are less appropriate for banks in light of the banks' liquidity profile and potential for maturity mismatch.

Proposal 7: Any NBFI that has access to a "lender of last resort" type of facility at the Federal Reserve should be "presumptively subject to regulation" by the Federal Reserve.

Response: As previously stated, regulation by the Federal Reserve would impose an inappropriate bank-centric regulatory framework and supervisory approach to a wide variety of business models that significantly differ from banks. This could also have the effect of disincentivizing NBFIs from accepting access to emergency lending facilities that could help stabilize institutions and, therefore, the larger system in the event of a financial crisis.



CONCLUSION

The New York Fed posts and the paper on which they are based fail to adequately account for the fundamental differences between NBFIs and traditional banks. A more nuanced approach is needed to accurately assess the role of NBFIs in the financial ecosystem. Any approach should consider the unique characteristics of these institutions, including their varying funding structures, risk management practices, and the nature of their investments. Only by developing a more tailored analytical framework can regulators and policymakers gain a true understanding of the systemic risk landscape in the evolving financial sector.

Ultimately, the goal of regulators should be to create an environment that recognizes the valuable role of NBFIs in the financial ecosystem in reducing risk for bank investments by increasing the system's overall equity cushion while effectively monitoring and mitigating genuine systemic risks. By embracing this challenge with rigor, openness, and collaboration, progress can be made towards a financial system that is both innovative and stable, serving the needs of the economy while safeguarding against systemic threats.

APPENDIX I

Matrices of Bank and NBFI Interdependencies in WBE-NBFI paper (pages 38-39)

Figure 4a. Matrix of Asset-and Liability-Interdependencies, Q1 2023

$Billions. For example, Broker/Dealers borrowed a total of $5.430 trillion, $1.370 trillion of which was from banks.

Source: Federal reserve System, Enhanced Financial Accounts (From Whom to Whom).

		HOLDERS	NBFIs													
	ISSUERS	Banks	ABS Issuers	Brokers/ Dealers	Equity REITs	Finance Companies	GSE and Agency	Life Ins.	MMF	Mortgage REITs	Mutual Funds	Other Fin. Bus.	PC Ins.	Pensions	Real Sector	Rest of World	TOTAL
	Banks	3,127	0	685	43	56	1,096	555	429	21	232	247	143	301	18.800	4,425	30,161
NBFIs	ABS Issuers	143	0	4	0	1	11	573	45	0	39	68	116	27	45	375	1,448
NBFIs	Brokers/ Dealers	1,370	0	1,285	0	0	112	9	459	0	30	3	3	0	571	1,587	5,430
NBFIs	Equity REITs	224	29	0	9	5	12	130	0	15	61	2	24	62	169	160	903
NBFIs	Finance Companies	196	0	0	3	5	2	153	6	1	99	18	35	86	289	445	1,338
NBFIs	GSE and Agency	3,209	0	102	1	1	234	276	791	171	543	0	135	408	1,892	1,361	9,123
NBFIs	Life Ins.	328	178	8	7	4	145	519	9	2	10	0	23	1,006	6,708	206	9,152
NBFIs	MMF	0	0	0	0	0	0	77	0	0	237	435	42	288	4,385	200	5,664
NBFIs	Mortgage REITs	44	0	66	1	1	14	42	52	0	29	1	10	24	38	199	519
NBFIs	Mutual Funds	14	0	0	0	0	0	1,471	0	0	0	0	31	4,868	10,700	1,052	18,137
NBFIs	Other Fin. Bus.	49	0	878	5	3	4	27	19	2	11	107	6	68	399	37	1,616
NBFIs	PC Ins.	35	1	0	5	3	8	27	1	2	7	0	200	61	1,876	329	2,551
NBFIs	Pensions	0	0	0	0	0	0	0	0	0	0	0	0	0	27,100	0	27,100
	Real Sector	16,200	1,275	679	256	1,197	10,500	3,477	1,214	333	3,365	186	1,214	12,400	43,400	22,100	117,795
	Rest of World	3,799	1	520	7	466	98	1,156	438	4	928	233	570	670	8,257	0	17,146
	TOTAL	28,737	1,483	4,226	337	1,744	12,236	8,491	3,462	550	5,591	1,300	2,554	20,269	124,630	32,473	

Figure 4b. Matrix of Liability-Interdependencies, Q1 2023

Percentage of total issued liabilities. For example, 25% of Broker/Dealers liabilities are held by banks.

Source: Federal reserve System, Enhanced Financial Accounts (From Whom to Whom).

	HOLDERS	NBFIs														
ISSUERS	Banks	ABS Issuers	Brokers/ Dealers	Equity REITs	Finance Companies	GSE and Agency	Life Ins.	MMF	Mortgage REITs	Mutual Funds	Other Fin. Bus.	PC Ins.	Pensions	Real Sector	Rest of World	TOTAL
Banks	10	0	2	0	0	4	2	1	0	1	1	0	1	62	15	100
ABS Issuers	10	0	0	0	0	1	40	3	0	3	5	8	2	3	26	100
Brokers/ Dealers	25	0	24	0	0	2	0	8	0	1	0	0	0	11	29	100
Equity REITs	25	3	0	1	1	1	14	0	2	7	0	3	7	19	18	100
Finance Companies	15	0	0	0	0	0	11	0	0	7	1	3	6	22	33	100
GSE and Agency	35	0	1	0	0	3	3	9	0	6	0	1	4	21	15	100
Life Ins.	4	2	0	0	0	2	6	0	0	0	0	0	11	73	2	100
MMF	0	0	0	0	0	0	1	0	0	4	8	1	5	77	4	100
Mortgage REITs	8	0	13	0	0	3	8	10	0	6	0	2	5	7	38	100
Mutual Funds	0	0	0	0	0	0	8	0	0	0	0	0	27	59	6	100
Other Fin. Bus.	3	0	54	0	0	0	2	1	0	1	7	0	4	25	2	100
PC Ins.	1	0	0	0	0	0	1	0	0	0	0	8	2	74	13	100
Pensions	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	100
Real Sector	14	1	1	0	1	9	3	1	0	3	0	1	11	37	19	100
Rest of World	22	0	3	0	3	1	7	3	0	5	1	3	4	48	0	100

NBFIs

APPENDIX II

Illustrative model of why bank lending to a private credit firm is safer than direct lending to corporates.

The two different scenarios below compare the potential risk of a bank investing directly to companies versus indirectly via a private credit fund that invests in a portfolio of businesses. The assumed default rate is a very conservative 50%, and the recovery rate is also 50%.

Scenario 1

In this scenario, the bank directly lends 100m to 20 companies.

1. The bank receives 75m back (50m from non-defaulting loans + 25m recovered from defaults).
2. The bank's loss is 25m, which represents a 25% loss on the original loan amount.

Scenario 2

In this scenario, the bank makes a senior, secured loan to a private credit fund:

3. The bank lends 100m to the fund, which is combined with 100m from investors.
4. The fund lends 200m to 40 companies.
5. The fund receives 150m back (100m from non-defaulting loans + 50m recovered from defaults).
6. The bank receives its full 100m loan back, resulting in 0% loss.
7. The investors receive the remaining 50m, incurring a 50m loss, which represents a 50% loss on their original investment.

Key observations on percentage losses:

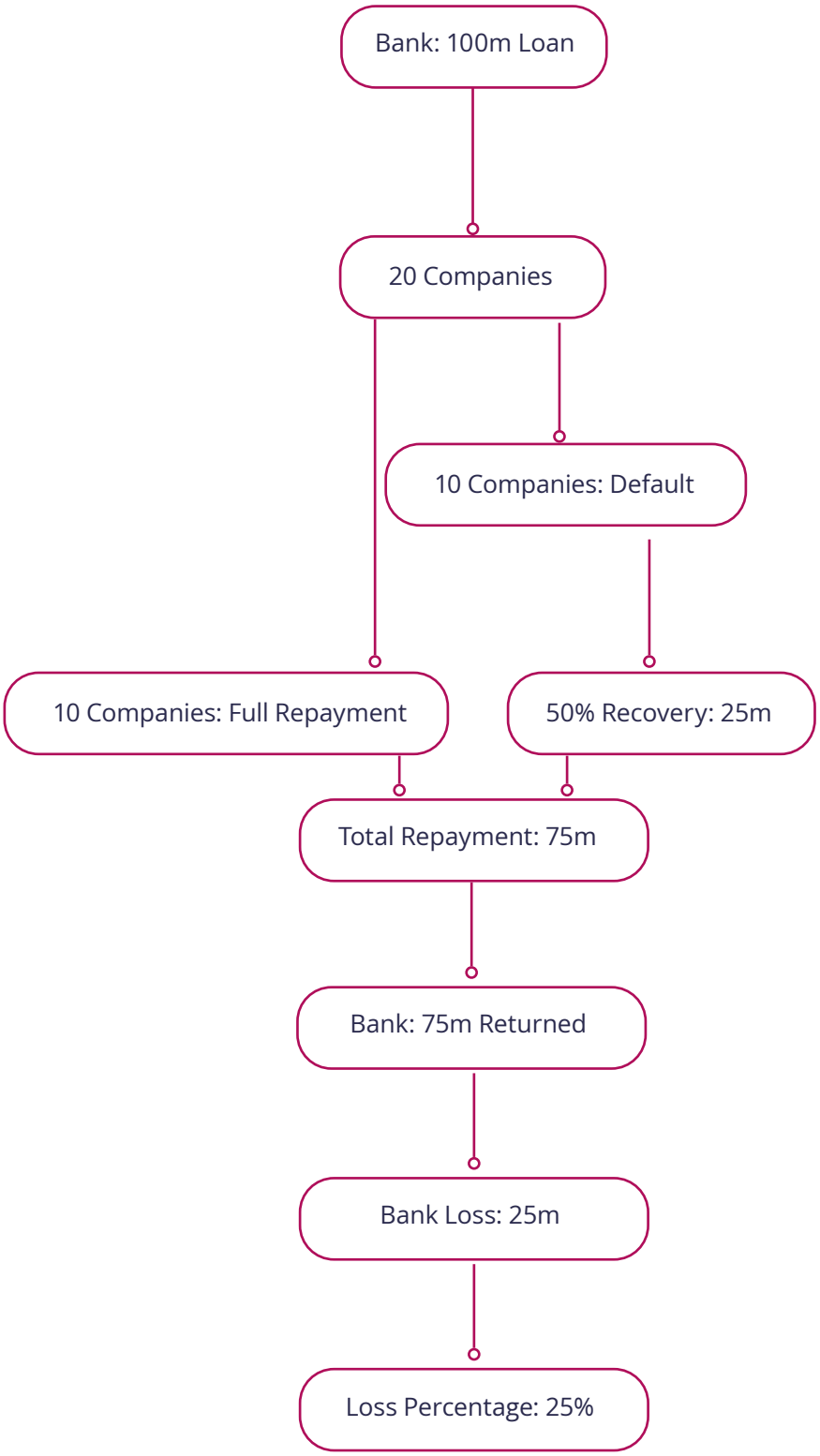
1. Direct lending scenario:
    - Bank: 25% loss (25m out of 100m)
2. Fund lending scenario:
    - Bank: 0% loss (full repayment of 100m)
    - Investors: 50% loss (50m out of 100m)

These percentage losses clearly illustrate how the fund structure in the second scenario shifts the risk from the bank to the investors. While the total loss in both scenarios is the same (50m), the distribution of this loss is very different:

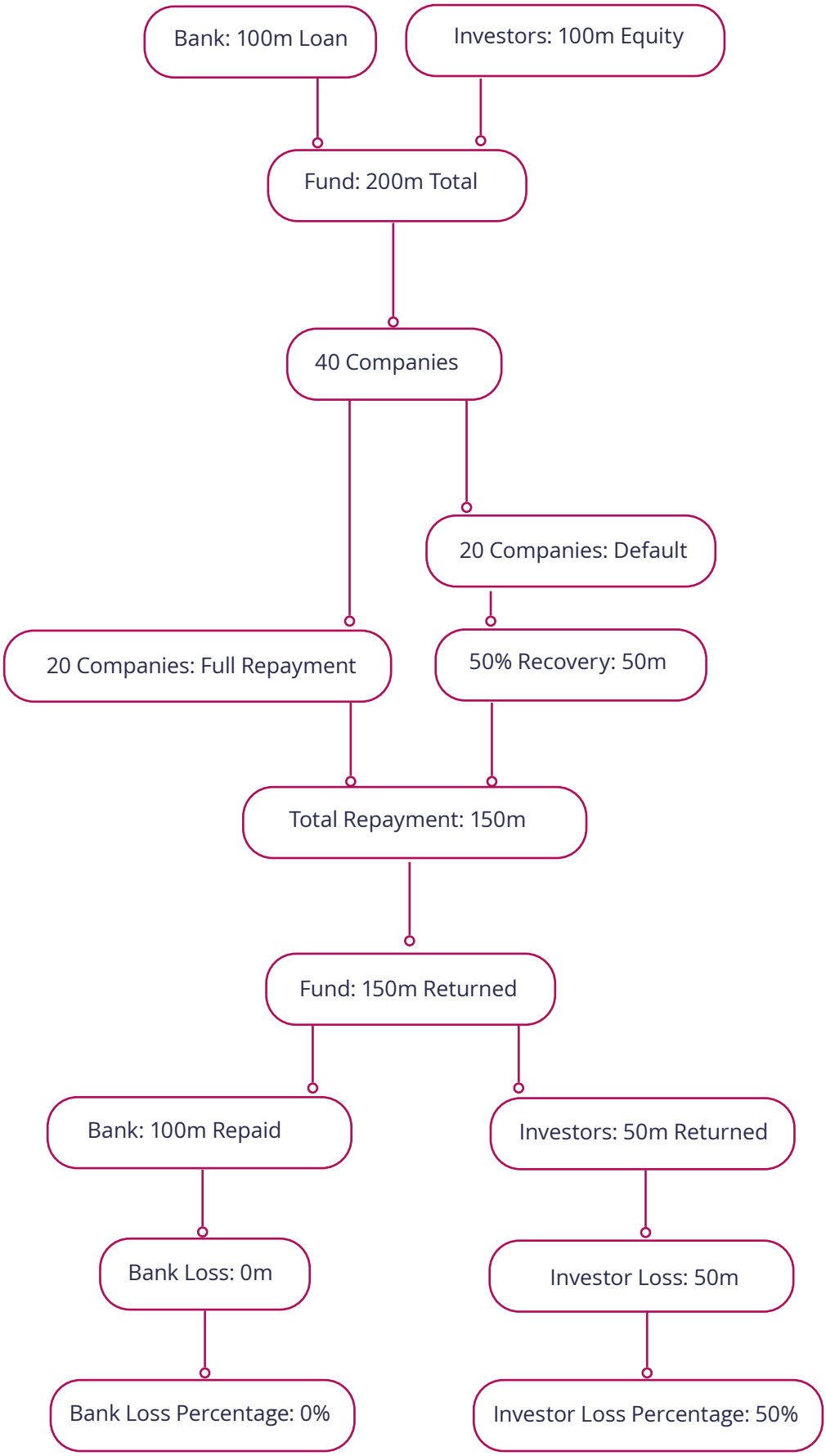
1. In the direct lending scenario, the bank bears the entire loss, resulting in a 25% loss on its investment.
2. In the fund lending scenario, the bank is fully protected from loss, while the investors bear the entire loss, resulting in a higher percentage loss (50%) but on a smaller initial investment.

This comparison highlights how the bank's loan in the fund scenario becomes a much safer investment, effectively transferring the risk to the equity investors who, in return, have the potential for higher returns if the default rate is lower than expected.

Scenario 1 graph:



Scenario 2 graph:



ABOUT THE ACC

The Alternative Credit Council (ACC) is a global body that represents asset management firms in the private credit and direct lending space. It currently represents 250 members that manage over US$1 trillion of private credit assets.

The ACC is an affiliate of AIMA and is governed by its own board which ultimately reports to the AIMA Council.

ACC members provide an important source of funding to the economy. They provide finance to mid-market corporates, SMEs, commercial and residential real estate developments, infrastructure as well the trade and receivables business.

The ACC's core objectives are to provide guidance on policy and regulatory matters, support wider advocacy and educational efforts and generate industry research with the view to strengthening the sector's sustainability and wider economic and financial benefits.

Alternative credit, private debt or direct lending funds have grown substantially in recent years and are becoming a key segment of the asset management industry. The ACC seeks to explain the value of private credit by highlighting the sector's wider economic and financial stability benefits.

For more information visit lendingforgrowth.org or email info@lendingforgrowth.com.

The global representative of the alternative investment industry