Private Markets September 2024 **Private Debt** The multi-faceted growth drivers BlackRock.

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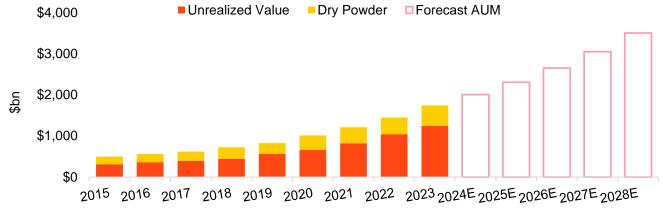
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Key takeaways

The asset class of private debt has grown significantly over the past several years, and our \$3.5 trillion assets under management (AUM) forecast anticipates continued momentum (Exhibit 1). We attribute the growth of the asset class to four multi-faceted growth drivers:

- Borrower preferences for certainty of execution, flexibility and clarity on pricing and an expanding addressable market. As the size of the private debt asset class has grown, it is no longer reserved for "niche" financing solutions. Rather, it can now compete in areas where it previously could not such as the syndicated debt markets. As a result, the "addressable market" of private debt borrowers has expanded.
- Investor desires for portfolio diversification and increased comfort with private debt. In its earlier years, we believe some institutional investors were concerned about the potential for "adverse selection" in private debt. Over time, that theory has somewhat faded, as (1) companies with demonstrated access to the public markets have chosen the path of private debt, and (2) losses (using the Cliffwater Direct Lending index) continue to compare favorably with USD public markets (Exhibit 44), as the private debt track record has extended.
- Structural shifts in the public debt and equity markets. The public debt markets (HY bonds and leveraged loans) are now serving larger borrowers, as evidenced by average new issue deal sizes that are prohibitively large for most middle market companies. Furthermore, companies are staying private for longer, as illustrated by a long-term decline in new equity listings and longer private equity "hold times" for portfolio companies. This provides an opportunity for private financing to play a larger role in the growth journeys of many companies.
- Shifts in the bank lending ecosystem. Since the global financial crisis, the share of bank lending to U.S. GDP has declined notably. And regulatory considerations have driven banks to reassess the most capital efficient uses of their own balance sheet. We believe private debt is well positioned to fill any potential resulting "financing voids". And importantly, we believe the growth of private debt to become a third and viable funding option for a wide range of companies alongside the public debt markets and the banking channel is a net *positive* for financial stability.

Exhibit 1: We expect global private debt AUM to reach \$3.5 trillion by year-end 2028Private debt global assets under management (unrealized value and dry powder), and AUM forecasts



Source: BlackRock, Preqin. Historical (actual) data from Preqin, as of each calendar year-end. 2024E to 2028E are BlackRock estimates. **There is no guarantee any forecasts may come to pass.** As of August 28, 2024.

Defining the term "private debt"

For much of the past several years, references to the growing asset class of "private debt" have largely focused on the concept of lending to middle-market corporate borrowers. But as we <u>outlined in May 2024</u>, the term "private debt" has more recently been applied to a wider range of directly negotiated lending opportunities in the private asset-based financing market. This definition – which encompasses lending related to consumer debt, hard assets, commercial financing and intellectual property, among other categories – is estimated to be a \$5.5 trillion market in the U.S., per an <u>April 2024 Oliver Wyman analysis</u>.

In this piece, however, we focus on the growth drivers behind the more "traditional" definition of private debt, where data tends to be more granular, widely available, and somewhat homogenous. For purposes of this discussion, "private debt" refers to financing that is directly negotiated between a lender (often an alternative asset manager) and a borrower (usually a small-to-mid-sized company). Such loans are typically floating-rate and secured by some portion of the borrower's assets.

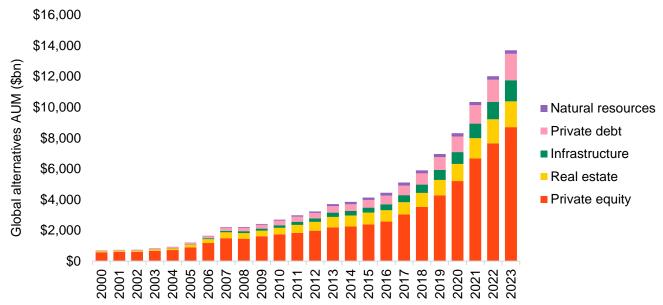
Sizing the global private debt markets

While the concept of middle-market lending has existed for decades, it was historically conducted via so-called "relationship lending" using banks' own capital (i.e., balance sheet) or deposits. Following the onset of the 2007-2009 global financial crisis (GFC), shifts in how banks utilized their balance sheet capacity caused private debt to evolve into a *stand-alone* asset class driven by inflows of institutional third-party capital.

Private debt continues to cement its status as a sizable and scalable asset class for a wide range of long-term investors. The asset class – which totaled more than \$1.7 trillion globally as of December 2023 (according to data from Preqin) – represents roughly 13% of the \$13.7 trillion alternative investment universe (Exhibit 2).

We continue to forecast that the global private debt market will reach \$3.5 trillion in AUM by year-end 2028, as we <u>initially outlined in late 2023</u> (again, Exhibit 1). This implies a roughly 15% compound annual growth rate (CAGR) over the next five years. Considering the average annual growth rate from 2020-2022 was 21%, we view this as quite achievable – especially considering the structural shifts in the financing ecosystem (banks and public debt / equity markets) over the past few years (discussed later).

Exhibit 2: Private debt represents 13% of the \$13.7 trillion alternatives universe Assets under management (unrealized value and dry powder) across alternative asset classes



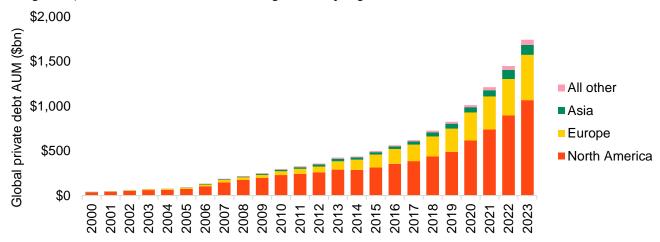
Source: BlackRock, Preqin. As of December 31, 2023 (most recent available as of August 28, 2024). To avoid double counting of available capital and unrealized value, fund of funds and secondaries are excluded.

Unpacking the growth drivers of private debt

The drivers of private debt's growth have been multi-faceted over the past several years. As we outline in further detail within, we attribute the growth of the asset class to four primary factors (some of which have been in place for a while):

- (1) Borrower preferences and an expanding addressable market. Many corporates especially those at inflection points in their growth path desire customized funding solutions and value the certainty of execution and flexibility inherent in a long-term borrower/lender relationship. We view this as the "demand" for private debt. Importantly, as the size of the private debt asset class has grown (Exhibit 3), it is no longer reserved for "niche" financing solutions. Rather, it can now compete in areas where it previously could not such as the syndicated debt markets. As a result, the "addressable market" of private debt borrowers has expanded.
- (2) Investor desires for portfolio diversification and increased comfort with private debt. In its earlier years, we believe some institutional investors were concerned about the potential for "adverse selection" in private debt markets. Put simply, a common concern we would hear was along the lines of: "do private debt borrowers simply have no other options?". Over time, we believe that theory has been somewhat disproven, as (1) companies with demonstrated access to the public markets have chosen the path of private debt, and (2) losses (for the Cliffwater Direct Lending Index) continue to compare favorably with USD public markets (Exhibit 44), as the private debt track record has extended. In the context of a "whole portfolio" view, more investors are turning to private debt for diversification, reliable income, and opportunities to introduce structural protections, depending on the strategy. We refer to this as the "supply" of capital used in private debt lending.
- (3) Structural shifts in the public debt and equity markets. The public debt markets (HY bonds and leveraged loans) now serve larger borrowers, as evidenced by average new issue deal sizes that are prohibitively large for most middle market companies. Furthermore, companies are staying private for longer, as illustrated by a long-term decline in new equity listings and longer private equity "hold times" for portfolio companies. This provides an opportunity for private financing to play a larger role in the growth journeys of many companies.
- (4) Shifts in the bank lending ecosystem. Since the GFC, the share of bank lending to U.S. GDP has declined notably. And regulatory considerations have driven banks to reassess the most capital efficient uses of their own balance sheet. We believe private debt is well positioned to fill any potential resulting "financing voids." And importantly, we believe the growth of private debt to become a third and viable funding option for a wide range of companies alongside the public debt markets and the banking channel is a *positive* for financial stability.

Exhibit 3: North America represents 61% of global private debt assets under management Total global private debt assets under management, by region



Source: BlackRock, Preqin. As of December 31, 2023 (most recent available as of September 1, 2024). Excludes Real Estate and Infrastructure lending.

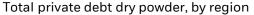
Using widely accepted measures from third-party data providers such as Pregin, global private debt AUM has more than doubled in size vs. 2018 and quadrupled in size vs. 2014 (again, Exhibit 1). Notably, private debt AUM of \$1.7 trillion is inclusive of \$467 billion of dry powder (as of August 2024), which represents capital available for deployment (Exhibit 4).

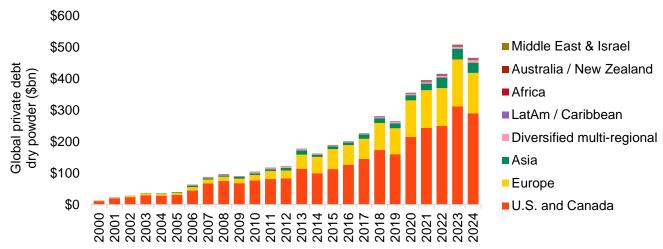
As Exhibits 3 and 4 illustrate, North America represents the largest region in terms of total private debt AUM and private debt dry powder.

A range of "private debt" strategies

Beyond regional nuances, the various lending strategies with the broader term of "private debt" are also quite distinct, as we outlined in February 2024. The largest, by far, is direct lending, which represents roughly 49% of global AUM, according to data provider Pregin (Exhibit 5). And North America direct lending represents 28% of global private debt AUM.

Exhibit 4: North America represents 62% of global private debt dry powder

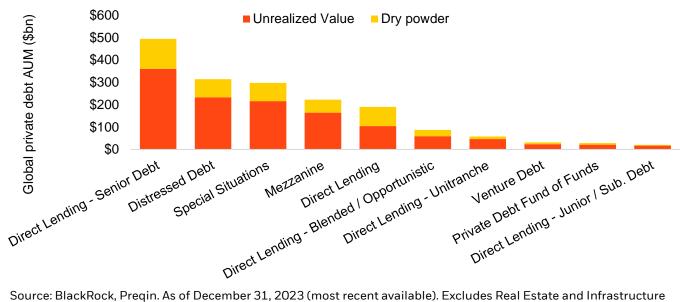




Source: BlackRock, Pregin. As of each calendar year-end. 2024 is as of August 2024. Total AUM (which includes unrealized value of investments and dry powder available for deployment) per Preqin is available on an approximate sixmonth lag for private market assets. Dry powder figures (in isolation) are not subject to the same lag in terms of data availability.

Exhibit 5: The term 'private debt' encompasses a wide range of investing strategies





Source: BlackRock, Pregin. As of December 31, 2023 (most recent available). Excludes Real Estate and Infrastructure lending.

Growth driver #1: Borrower preferences, expanding market

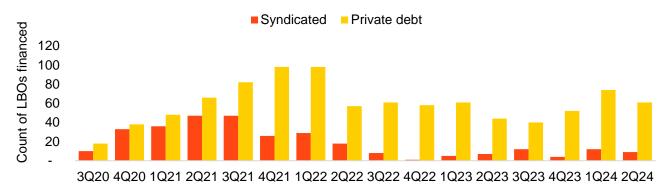
The factors in driver #1 are related. Starting with borrower preferences, corporates' desire for customized funding solutions has resulted in significant demand for private debt. Companies value the ease and simplicity of the transactions. Due to the direct negotiating and underwriting process, lengthy investor roadshows and rating agency reviews are largely unnecessary for borrowers when they choose the route of private debt. Another advantage, from a borrower's perspective, is the ability to keep proprietary and confidential information out of the public domain.

Certainty of execution is also a strong draw for many corporate borrowers – especially in periods of elevated market volatility. Extended periods of disruption in the syndicated debt markets often present an opportunity for private debt managers to deploy capital to credit worthy borrowers caught in a market dislocation. This is because private credit transactions are directly negotiated between the borrower and one lender (or a small group of lenders) and do not rely on syndication to a wide range of investors (who can become more risk averse during times of market volatility).

And because they involve only a small group of lenders, private credit financings can often include more flexibility and customization, either at origination or, if needed, later. In other words, private credit markets may offer <u>certainty of execution</u> and clarity on pricing when subsets of the public markets may not.

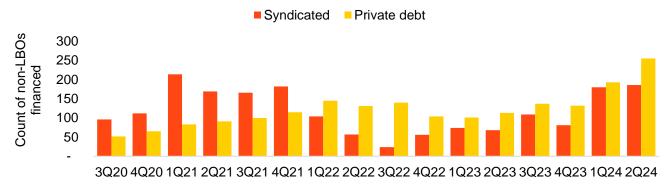
Data from Pitchbook LCD shows increased private debt participation in the broader USD financing markets for both leveraged buy-out (LBO) and non-LBO transactions (Exhibits 6 and 7). As the private debt market continues to grow, its capability to compete directly with the public debt financing markets will likely expand (hence, the second factor of growth driver #1: an expanding addressable market). We view this as a natural evolution of the asset class as it matures.

Exhibit 6: The private debt market has dominated USD market LBO financing, by deal count Count of LBOs financed in USD broadly syndicated loan vs. private debt markets



Source: BlackRock, Pitchbook LCD. Captures data through June 30, 2024 (most recent available). Private debt count is based on transactions covered by LCD News.

Exhibit 7: Private debt participation has also increased in USD market non-LBO financingsCount of non-LBOs financed in USD broadly syndicated loan vs. private debt markets

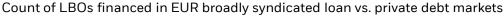


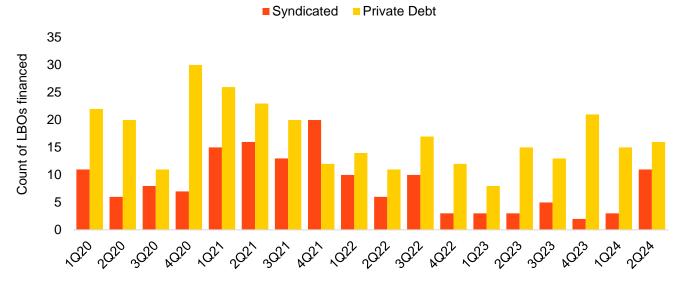
Source: BlackRock, Pitchbook LCD. Captures data through June 30, 2024 (most recent available). Private debt count is based on transactions covered by LCD News.

A similar trend is evident in the EUR market, where private debt financings have featured heavily in LBO deals – albeit to varying degrees in a given quarter, depending on market conditions and other factors (Exhibit 8). And as Exhibit 9 illustrates, the deal size distribution of recent direct lending deals has been skewing larger.

As the private debt market continues to grow, its capability to compete directly with the public debt financing markets will likely expand (hence, the second factor of growth driver #1: an expanding addressable market). We view this as a natural evolution of the asset class as it matures.

Exhibit 8: Private debt financings are also common among EUR LBOs

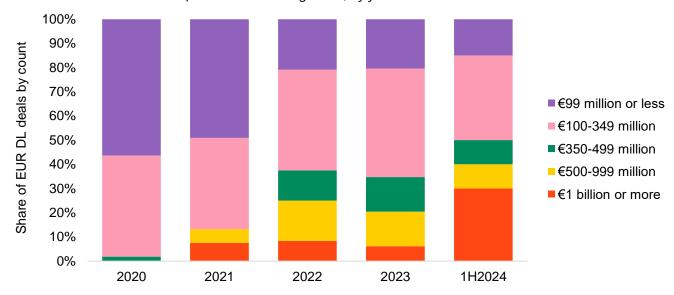




Source: BlackRock, Pitchbook LCD. Captures data through June 30, 2024 (most recent available). Private debt count is based on transactions covered by LCD News.

Exhibit 9: The European direct lending market is completing larger deals

Deal size distribution of European direct lending deals, by year and count



Source: BlackRock, Pitchbook LCD. Captures data through June 30, 2024 (most recent available). Analysis is based on transactions covered by LCD News. Share calculated based on deals where size information is disclosed.

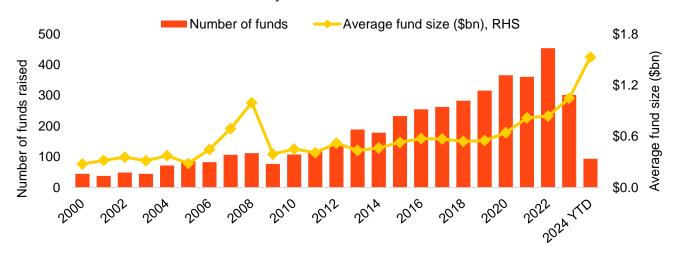
The public vs. private debt "mix shift" will likely ebb and flow

The addressable market in private debt has expanded significantly over the past decade as the benefits have become more evident, and the size has become more practical for a wide range of deals. In the earliest days of the asset class, private debt was used primarily for very small financing needs or for companies without meaningfully positive (or even negative) EBITDA. But this asset class is no longer reserved for niche pockets of the market. In recent years (as the size of the asset class has grown), private debt lenders have funded larger deals, leading to more competition with the traditional (syndicated) leveraged finance markets. This can be seen in the fundraising trends highlighted in Exhibit 10.

More recently, there have been several examples of firms refinancing debt (currently outstanding in the public debt markets) with private funding solutions (and vice versa; Exhibit 11). In fact, various public news reports (Pitchbook LCD, Bloomberg) over the past 18 months have indicated that some borrowers are preferring to run "dual track" processes, simultaneously assessing investor interest in both the public and private debt markets to determine where they can achieve the best execution. We view this as reflective of private debt's appeal to a wide range of borrowers (even those with demonstrated access to the public markets) and expect this "funding mix" to ebb and flow over time, depending on market conditions.

Exhibit 10: Larger fund sizes in private debt fundraising

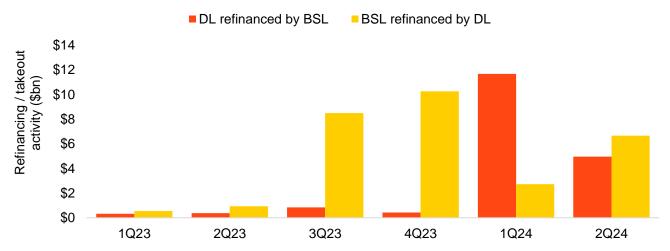
Global private debt fundraising. Captures the "final close date" for each fund, or the number of funds that have reached a final close in each calendar year.



Source: BlackRock, Preqin. As of August 16, 2024.

Exhibit 11: The financing mix between the USD public (syndicated) and private credit markets will continue to ebb and flow

USD broadly syndicated leveraged loan (BSL) and direct lending (DL) takeouts



Source: Pitchbook LCD, BlackRock. Captures data through June 30, 2024 (most recent available as of August 6, 2024). FOR QUALIFIED, PROFESSIONAL, INSTITUTIONAL AND WHOLESALE INVESTORS/ PROFESSIONAL CLIENTS ONLY | NOT FOR PUBLIC DISTRIBUTION

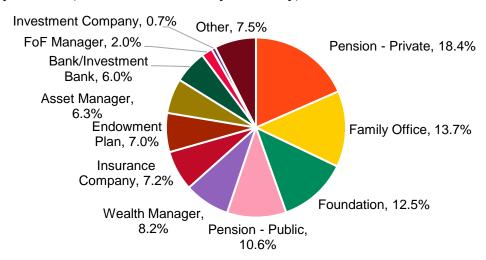
Growth driver #2: Investor desires and increased comfort

Like the previous discussion related to borrowers' preferences, the factors behind investors' participation in the private debt asset class are also multifaceted. First, to level set on the broader landscape, private debt ownership is largely comprised of buy-and-hold investors, such as pension funds, endowments, foundations, and insurance companies, among others (Exhibit 12).

Many of these investors engage in asset-liability matching, whereby long-term liabilities to be paid in the future (such as life insurance payments and pension payouts) are matched against income-generating assets with a similar maturity profile.

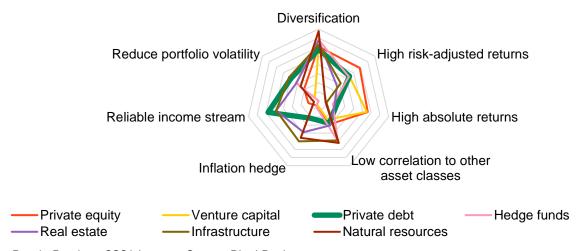
A June 2024 survey conducted by Preqin asked institutional investors about their main reasons for allocating to a range of alternative asset classes. As shown in Exhibit 13, private debt investors most frequently mentioned a reliable income stream (58%) and diversification (57%), alongside high risk-adjusted returns (44%) and reduced portfolio volatility (40%).

Exhibit 12: The private debt ownership base: largely long-term and "buy-and-hold" focused Proportion (by count) of private debt investors by investor type



Source: BlackRock, Preqin. As of June 25, 2024. The "Other" category includes Corporate Investor, Government Agency, Investment Company, Investment Trust, Sovereign Wealth Fund, and Superannuation Scheme. FoF = fund of fund.

Exhibit 13: Income and diversification are among the top reasons for private debt allocations Institutional investors' main reasons for investing in alternative assets, per a June 2024 Pregin survey



 $Source: Preqin\ Pro\ June\ 2024\ Investor\ Survey,\ BlackRock.$

Placing "buy and hold" in context

Private debt investments are generally designed to be held to maturity. Additionally, in contrast to the public market, private debt loans are not actively traded. As a result, such structures are best suited for investors that are willing and able to take on illiquid assets and do not have significant, unpredictable needs for near-term liquidity.

One byproduct of a "buy-and-hold" investor base is the ability to remain patient during periods of market volatility. This can minimize technical downside pressure on the private debt asset class relative to what is sometimes observed in the public markets during similar times of stress. In our view, and with the caveat that fund-specific nuances are important to consider, this generally leaves the private debt asset class less vulnerable to asset-liability "mismatches," as the liquidity of direct lending fund structures is typically well matched to the duration of the investments (i.e., both are long-term).

The <u>Cliffwater Direct Lending Index (CDLI)</u> provides some context on the average life of a private debt loan in the U.S. direct lending market. As background, the CDLI is an asset-weighted index of approximately 16,200 directly originated middle market loans totaling \$360 billion as of June 30, 2024. Launched in 2015, the CDLI was reconstructed back to 2004 using quarterly SEC filings required of business development companies, whose primary asset holdings are U.S. middle market corporate loans.

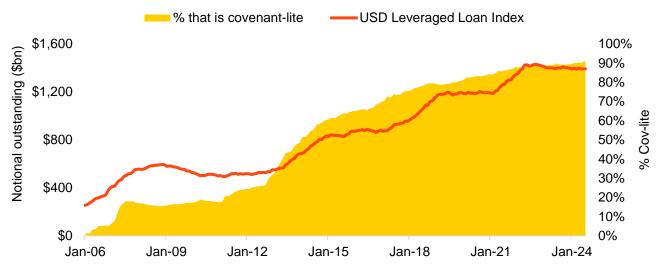
A June 2024 Cliffwater analysis indicates that while most direct lending loans are structured with a maturity of 5 to 7 years, they are often paid back early. Catalysts for early loan repayment would include a private equity backed sponsor selling a business (allowing the loan to be repaid or refinanced). Indeed, over a long-term historical period (from September 2005 to June 2024), the average effective loan life of the CDLI was 3.2 years. As of June 2024, the average effective loan life was 4.3 years – down significantly from 5.8 years as of late 2023. The increase in the effective loan life was reflective of a lower level of principal repayments amidst declining M&A volumes, according to Cliffwater.

An opportunity for structural protections

Investing in private debt may also provide investors an opportunity to access certain structural protections (depending on the strategy). For example, a 2024 <u>survey</u> (of 178 private debt lenders) conducted by Proskauer Rose LLP found that 58% of private debt underwriters would not do a deal without a covenant. 31% of private debt lenders said they would consider a "covenant-lite" loan but noted that they would require the company's annual EBITDA to be \$50 million or greater.

Exhibit 14: 91% of the USD Leveraged Loan Index is "covenant-lite"

Notional outstanding of the Morningstar / LSTA USD Leveraged Loan Index, and the share of the index that is "covenant-lite"



Source: Morningstar/LSTA, Pitchbook LCD, BlackRock. As of August 22, 2024. Covenant-lite loans are loans that have bond-like financial incurrence covenants rather than the traditional (and usually more restrictive) maintenance covenants.

In another study, researcher Young Soo Jang evaluates data from over 3,000 private equity-backed firms¹. The research finds that "nearly all" senior, direct lender-originated loans include financial covenants, as evidenced by a random sub-sample of nearly 300 senior private debt credit agreements, where 99% include such covenants.

Additionally, a <u>November 2023 analysis</u> conducted by Covenant Review (and reported by CreditSights, a Fitch Solutions Company) found that 20% of sampled private credit loans lacked maintenance financial tests. This marks a decline in the "covenant-lite" shares of both 2022 (30%) and 2021 (31%). A more recent snapshot from Fitch showed that slightly more than 15% of middle market deals were "covenant-lite" as of January 2024.

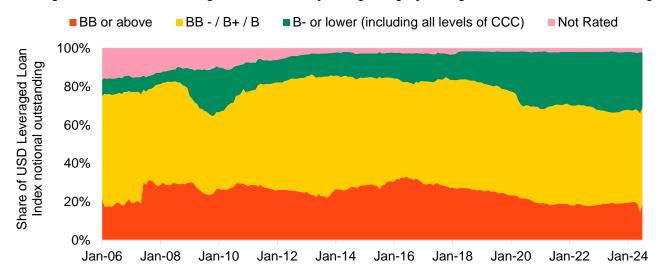
These snapshots within private debt stand in contrast to the USD broadly syndicated loan market, which has evolved over the past decade to become heavily skewed towards "covenant-lite" loans, as shown in Exhibit 14. In our view, this is a direct reflection of the institutionalized nature of the syndicated leveraged loan market – as it shifted to more closely resemble its USD HY bond market peer. A similar pattern exists in the EUR syndicated leveraged loan market, where 100% of 2023 institutional issuance volumes were covenant-lite, per data complied by Pitchbook LCD.

One common area of concern we hear from investors relates to a perceived lack of transparency in the private debt market, relative to its public market peer. But we believe investors may be overstating the transparency in certain liquid credit markets, such as the USD broadly syndicated loan universe. For example, our August 2024 review of the individual loan-level constituents of the Morningstar/LSTA USD Leveraged Loan Index found that 75% of the 1,353 loans in the index were issued by private (i.e., not publicly listed) firms, at the time of issuance.

And while companies held in private debt portfolios are not filing quarterly financials and hosting public earnings conference calls, they *are* often in regular dialogue with their small group of lenders, sharing regular financial updates (frequency is determined by the lending arrangement).

Separately, as Exhibit 15 illustrates, the share of the USD broadly syndicated leveraged loan index rated B- or lower has also been growing in recent years. While not alarming in isolation, this can cause a technical hurdle for the largest buyer of leveraged loans – collateralized loan obligations (CLOs) – which have limits on the amount of CCC-rated loans they are able to own within their structures. With B- just one notch away from CCC territory, the appetite from CLOs for B- leveraged loans has shown a tendency to wane in periods of macroeconomic uncertainty (when downgrade risks may be more pronounced).

Exhibit 15: The weighted average rating of the USD Leveraged Loan Index is close to B+ Morningstar / LSTA USD Leveraged Loan Index, by rating category (using notional amount outstanding)



Source: Morningstar/LSTA, Pitchbook LCD, BlackRock. As of August 22, 2024.

¹ Young Soo Jang, "Are Direct Lenders More Like Banks or Arm's-Length Investors?," Available at: https://ssrn.com/abstract=4529656. 2024.

Fundraising focus areas vary alongside the macroeconomic environment

Trends in fundraising can also shed some insight on investors' preferences within the private debt landscape. This includes across strategies *and* manager experience levels.

We first begin with strategies. As shown in Exhibit 16 below, the fundraising mix across private debt strategies can vary considerably, depending on the broader macroeconomic environment and where private debt investors see the most significant opportunity. For example, distressed strategies represented a larger share of fundraising during the years surrounding the GFC (2007-2008) and the pandemic (2020-2021).

But beyond the overall fundraising "mix shift" across strategies, another trend is visible in Exhibit 16: fundraising within private debt (in absolute terms) has gained momentum in recent years, especially in the years immediately following the onset of the pandemic.

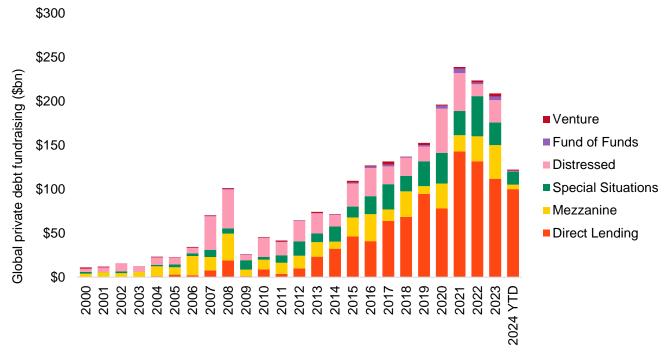
We see a few reasons for this. Among the most telegraphed are shifts in the interest rate environment. For example, the exceptionally low-interest rate environment in the U.S. and Europe following the onset of the pandemic likely incentivized investors to reach for higher-yielding assets like private debt. These assets incorporate elevated risk / illiquidity premiums compared to more "mainstream" investment options such as publicly traded corporate bonds. (We address the yield differentials between private and public debt in a later section.)

And of course, as the interest rate environment quickly pivoted to the opposite end of the spectrum (when the Federal Reserve and European Central Bank swiftly increased interest rates in 2022 and 2023), investors likely gravitated to private debt for its floating-rate characteristic.

But we believe another, less discussed, factor may explain the increased momentum behind private debt fundraising in recent years. Simply put, investors have likely become more comfortable with private debt, as its track record as a stand-alone asset class has extended.

Several years ago, our conversations with investors often featured concerns around the potential for "adverse selection" in the borrowers utilizing the market. But, with realized loss rates continuing to be moderate in both absolute and relative terms (as discussed later), we believe many institutional investors have reassessed underweight allocations to the asset class.

Exhibit 16: The "mix shift" of private debt fundraising can vary from year to year Private debt fundraising, by strategy and aggregate capital raised (\$bn)



Source: BlackRock, Pregin. As of August 16, 2024.

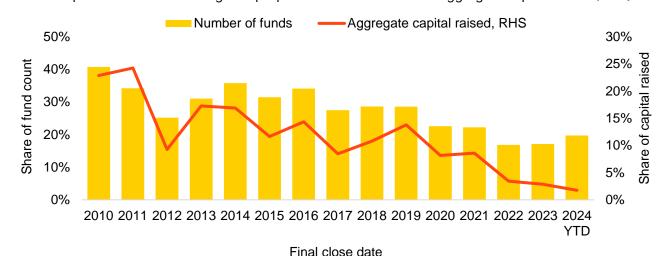
Capital allocators prioritize experience

That said, even as fundraising momentum has increased, investors have been discerning as to where they allocate capital. Indeed, the growth of private debt AUM in recent years has raised concerns among some market observers that new entrants may be sacrificing underwriting discipline to capture market share. Fundraising data from Preqin shows a more nuanced view: capital allocators have become more selective in the higher interest rate regime, instead favoring more experienced managers.

For example, Exhibit 17 shows that first-time private debt funds have captured, on average, 2.7% of total capital (per year) since 2022, well below the 2019-2021 run rate of 10.2%. Similarly, as shown in Exhibit 18, established private debt managers (i.e., those raising their fourth fund or later) have raised 84% of capital, on average, since 2022, compared to an average of 72% from 2019-2021.

We believe a higher interest rate environment has encouraged investors to favor more experienced managers, who typically benefit from restructuring and workout expertise. Preqin notes that a higher concentration in private capital fundraising is common as an asset class matures and relationships with limited partner (LP) investors become more entrenched.

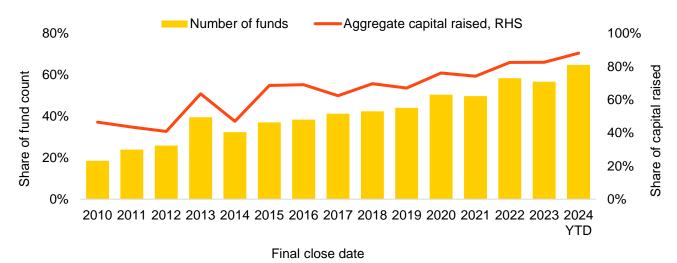
Exhibit 17: First-time private debt funds have raised minimal amounts of capitalFirst-time private debt fundraising as a proportion of total funds and aggregate capital raised (RHS)



Source: BlackRock, Preqin. Captures data as of June 18, 2024. Captures closed-ended private debt funds.

Exhibit 18: Experienced managers have raised most of the capital since 2022

Fourth fund or later private debt fundraising as a proportion of total funds and aggregate capital raised (RHS)



Source: BlackRock, Preqin. Captures data as of June 18, 2024. Captures closed-ended private debt funds. FOR QUALIFIED, PROFESSIONAL, INSTITUTIONAL AND WHOLESALE INVESTORS/ PROFESSIONAL CLIENTS ONLY | NOT FOR PUBLIC DISTRIBUTION

Room for increased investor participation

Underpinning our private debt \$3.5 trillion AUM forecast (mentioned earlier) is our expectation for increased investor *participation in* – and growing *allocations to* – private debt.

For example, Exhibit 19 leverages data from Preqin's 2H2024 Investor Outlook, which conducted a survey of a range of institutional investors in June 2024. The takeaway from Exhibit 19 is clear: we see scope for investor participation in private debt to increase, especially in the context of other alternative assets.

For example, only 27% of those surveyed were currently allocating to private debt. This compares to 56% for private equity and 46% for real estate. Similarly, of those investors who were allocated to private debt, the average allocation (as a percentage of total assets) was 6.9%. Here again, this is well below those seen in private equity (15.2%) and real estate (11.4%) - as well as hedge funds (15.3%).

That said, there is likely to be some trade-off between these allocations. The Preqin June 2024 survey showed that only 38% of investors surveyed allocate to three or more alternative asset classes. 21% allocate to just one, while 13% allocate to two. 28% allocate to none.

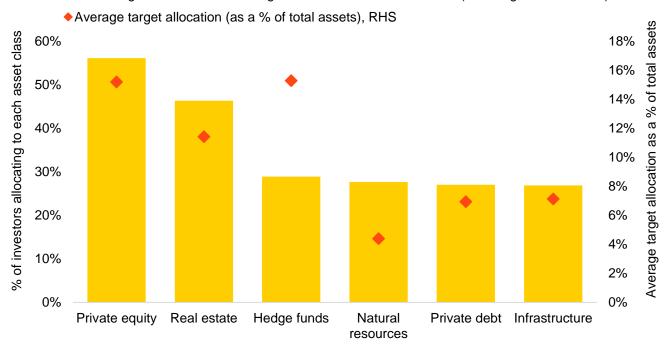
Beyond the narrow alternative asset allocation decision, we also believe private debt is increasingly being considered by investors in the context of their broader *fixed income* allocations. As a result, we expect the "fluidity" of investors' asset class allocation shifts between public fixed income and private debt to increase over time, just as is occurring in the landscape for *borrowers* (discussed earlier).

Among the more established strategies, investors surveyed saw the most opportunity in direct lending (70%), followed by special situations (44%) and distressed debt (35%). And among the so-called "emerging" strategies, asset-backed lending (58%) and private debt secondaries (37%) were listed as the most favored for the next 12 months, according to the Preqin survey.

Exhibit 19: We see ample scope for investor participation, and target asset allocations, in the private debt market to grow

Percentage of Preqin June 2024 investor survey respondents allocating to each alternative asset class, and the average target allocation (as a percentage of total assets), RHS

Percentage of investors allocating to each alternative asset class (including funds of funds)



Source: BlackRock, Preqin Pro June 2024 Investor Survey. Venture capital is included in private equity.

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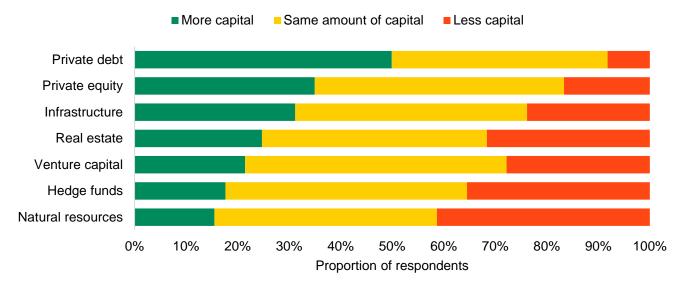
Private debt compares favorably regarding investors' allocation plans

Looking ahead, the Preqin June 2024 investor survey points to the potential for increased private debt allocations. Exhibit 20 illustrates that 50% of investors surveyed in June 2024 planned to allocate more capital to private debt over the next 12 months – the largest share among the alternative asset classes. Only 8% plan to allocate less capital (the lowest share among the group).

A similar pattern is evident when investors were asked about their long-term asset allocation plans. As shown in Exhibit 21, 53% of investors planned to increase their long-term private debt allocation, while only 1% planned to decrease their allocation.

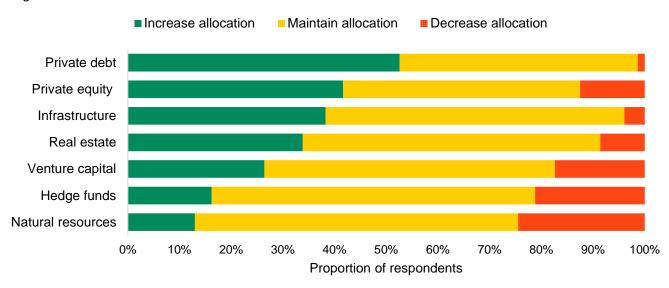
Exhibit 20: 50% of Preqin survey respondents plan to commit more capital to private debt in the next 12 months

Investors were asked: In the next 12 months do you expect to invest more, less, or the same amount of capital in the following asset classes than you did in the last 12 months?



Source: BlackRock, Preqin June 2024 Investor Survey. There can be no guarantee any forecasts may come to pass.

Exhibit 21: Investors also plan to increase private debt allocations over the longer termPreqin investor survey responses to: Investors' intentions for their alternative asset allocations over the longer term



Source: BlackRock, Preqin June 2024 Investor Survey. There can be no guarantee any forecasts may come to pass. FOR QUALIFIED, PROFESSIONAL, INSTITUTIONAL AND WHOLESALE INVESTORS/ PROFESSIONAL CLIENTS ONLY | NOT FOR PUBLIC DISTRIBUTION

Growth driver #3: Structural shifts in public markets

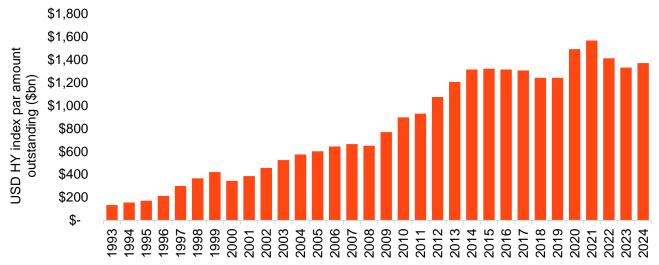
Structural shifts in the public debt and equity markets have also played a role in the growth of the private debt market, specifically related to borrowers' demand for private debt funding in the earlier stages of their growth journeys.

We first turn to dynamics in the USD public debt market, which has evolved to serve ever-larger borrowers. For example, the index notional amounts outstanding in the USD HY bond and leveraged loan markets have grown significantly since the GFC, and now total roughly \$1.4 trillion as shown in Exhibits 22 and 23.

This growth has resulted in higher "barriers to entry" in public funding markets for small- and medium-sized firms, as the public funding channel now serves larger borrowers. These higher "barriers to entry" are illustrated in the average deal sizes for new issues in the HY and leveraged loan markets (on the next page).

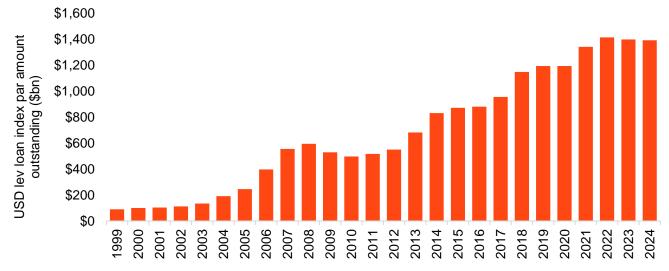
Exhibit 22: The Bloomberg USD HY index has \$1.37 trillion of debt outstanding

Par amount outstanding (\$bn) of the Bloomberg USD HY Corporate Index, as of each calendar year-end, and August 2024



Source: BlackRock, Bloomberg. As of August 20, 2024. Excludes HY bonds that are not index eligible.

Exhibit 23: The Morningstar/LSTA USD Leveraged Loan Index is now \$1.4 trillion in size Par amount outstanding (\$bn) of the Morningstar/LSTA USD Leveraged Loan Index, as of each calendar year-end, and August 2024

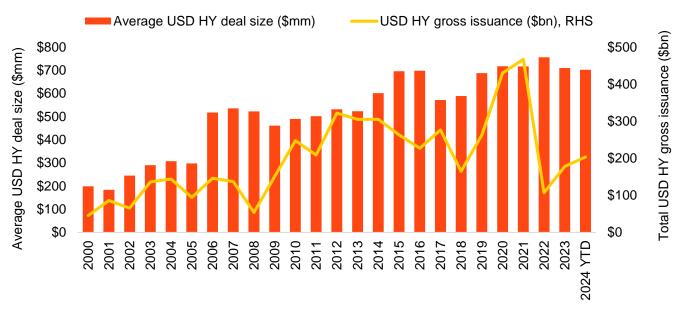


Source: BlackRock, Pitchbook LCD, Morningstar/LSTA. As of August 20, 2024. Excludes leveraged loans that are not index eligible.

As shown in Exhibit 24, the average new deal size in the USD HY corporate bond market has been more than \$700 million over the past four years. In the USD leveraged loan market, the average new deal size (new institutional money) is slightly lower but still substantial, averaging \$450 million since 2020 (Exhibit 25).

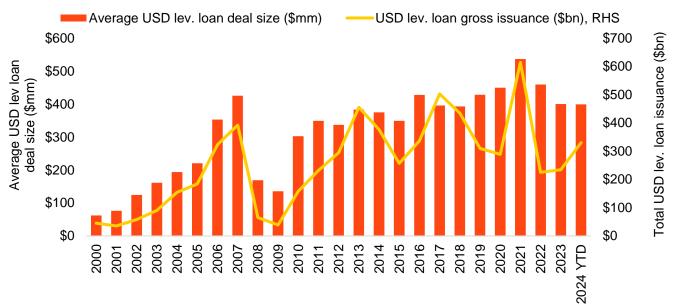
For a middle market firm seeking funding from the USD public markets, these "average" sizes are prohibitively large and unrealistic. Issuing "too little" debt in the public debt markets can render a capital structure illiquid and poorly held among investors. This is an unfavorable outcome if the firm would like to refinance in the future (and likely also a suboptimal outcome for investors). Further, in the event the issuer encounters financial difficulties, it runs the risk of more easily attracting a distressed investor base, who may seek to build a position in the debt and push for a restructuring.

Exhibit 24: The average USD HY deal size has been above \$700 million since 2020 Average USD HY deal size (\$mm) and total USD HY gross issuance (\$bn)



Source: BlackRock, Dealogic (ION Analytics). As of August 19, 2024. Excludes private placements not reported to Dealogic.

Exhibit 25: The average USD leveraged loan deal size has been \$450 million since 2020 Average USD leveraged loan deal size (in \$mm) and total annual gross issuance (in \$bn, RHS), by calendar year; new institutional money shown for each category



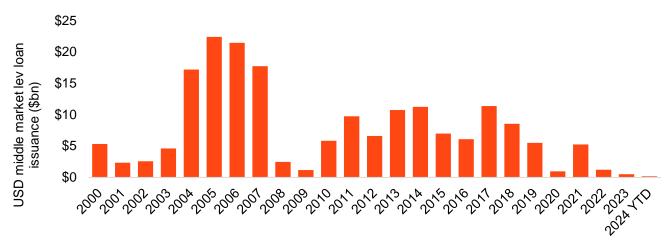
Source: BlackRock, Pitchbook LCD. As of August 20, 2024. Excludes loans that are not index-eligible. FOR QUALIFIED, PROFESSIONAL, INSTITUTIONAL AND WHOLESALE INVESTORS/ PROFESSIONAL CLIENTS ONLY | NOT FOR PUBLIC DISTRIBUTION

Beyond the average deal size growth within the syndicated USD HY bond and leveraged loan markets, the trend of the public debt markets serving larger borrowers is also visible when isolating USD middle market leveraged loan issuance in the syndicated channel. As shown in Exhibit 26, issuance of middle market leveraged loans (defined by LCD as firms with less than \$50 million in annual EBITDA) has stagnated over the past several years, while assets under management in private debt funds have grown substantially (again, Exhibit 1).

With the public debt markets serving ever larger capital structures, we expect middle market firms will continue to be drawn to the private debt markets for tailored funding solutions. In our view, the private debt market will continue to capture an increasing share of the "financing pie," including funding that may have previously been earmarked for the syndicated debt markets.

Exhibit 26: Middle market leveraged loan issuance in the syndicated channel has stagnated in recent years, as private debt AUM has grown

USD syndicated middle market leveraged loan issuance (\$bn)



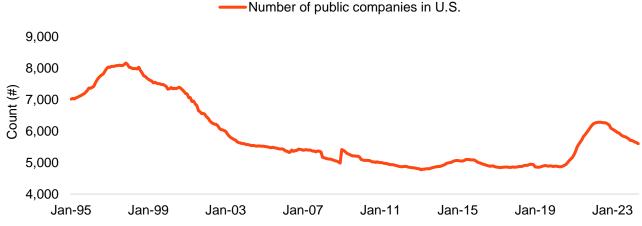
Source: BlackRock, Pitchbook LCD. As of August 20, 2024.

Fewer public companies may create more financing opportunities for private debt

In our view, structural shifts in the U.S. *equity* markets are also playing a role in the growth of private debt. As shown in Exhibit 27, between the early 2000s and 2020, the number of U.S. companies with public equity was stagnant. And after a flurry of initial public offering (IPO) activity in 2021, the trend has once again been on the decline. In our view, this should also expand the addressable market for private debt (a theme we explored in the 3Q2024 Global Credit Outlook).

Exhibit 27: Companies are staying private for longer

Number of public companies in the U.S., including those listed on New York Stock Exchange (NYSE) and National Association of Securities Dealers Automated Quotations (NASDAQ)



Source: BlackRock, World Federation of Exchanges, Haver Analytics. As of May 31, 2024 (most recent available). FOR QUALIFIED, PROFESSIONAL, INSTITUTIONAL AND WHOLESALE INVESTORS/ PROFESSIONAL CLIENTS ONLY | NOT FOR PUBLIC DISTRIBUTION

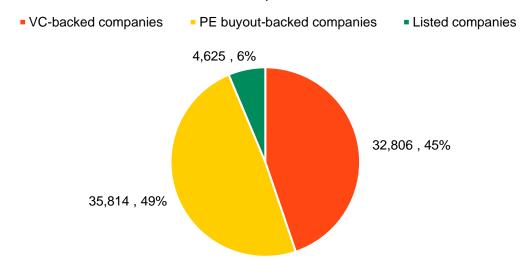
A similar analysis by Preqin further contextualizes the public vs. private dynamic. There are currently 4,625 publicly listed companies in the U.S. (excluding foreign firms), vs. over 68,000 firms backed by private equity (PE) buyouts or venture capital (VC), according to Preqin (Exhibit 28).

This trend of companies staying private longer is also evident in lower PE exits and longer PE hold times (Exhibit 29). As we <u>outlined in July 2024</u>, Pitchbook estimated a \$266 billion PE "exit deficit" as of 1H2024, down nearly 50% from peak values in 2022 but still elevated by historical standards. In 2Q2024, the exit/investment ratio for PE in the U.S. fell to 0.36x, a new record low, according to Pitchbook.

Additionally, PE exits increasingly favor corporate or sponsor acquisitions over public equity listings, in part due to a perceived unfavorable IPO environment, and depressed equity market valuations in certain industries (especially outside of some sectors such as mega-cap technology). In 1H2O24, public listings accounted for just 12% of U.S. PE exits by value. With companies staying private for longer and corporate or sponsor acquisitions representing the majority of PE exit value, private debt is positioned to continue growing as a key financing partner, in our view.

Exhibit 28: There are over 68,000 PE/VC-backed companies in the U.S.

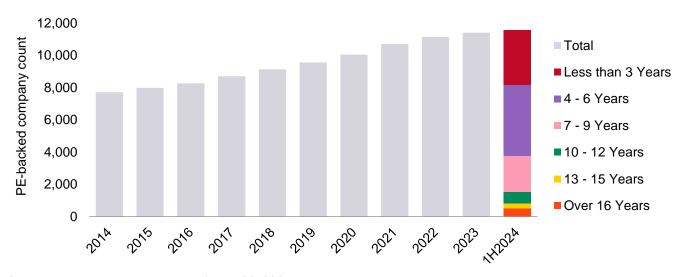
Number (and share) of listed and PE/VC-backed companies



Sources: Preqin, BlackRock. As of March 31, 2024. Listed companies exclude foreign-based companies listed in U.S. exchanges. Listed companies may overlap with PE/VC-backed list due to unsold stakes.

Exhibit 29: The median private equity hold time was 5.4 years in 1H2024

U.S. private equity-backed company count, by age bucket



Source: Pitchbook, BlackRock. As of June 30, 2024.

"Barriers to entry" also exist in the EUR public debt markets

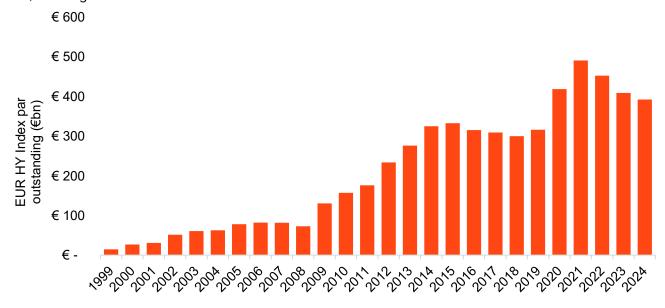
Many of the "barriers to entry" dynamics we discussed in the USD public debt markets are also visible in the EUR market.

While the size of the EUR HY and leveraged loan markets are much smaller than their USD peers (again, Exhibits 22 and 23), the trends shown in Exhibits 30 and 31 nonetheless highlight clear growth in the index market sizes vs. several years ago – especially in the EUR leveraged loan market.

And similarly, the average deal sizes in each market are also quite large for most middle market companies (Exhibits 32 and 33, next page).

Exhibit 30: The Bloomberg EUR HY index currently stands at €392 billion

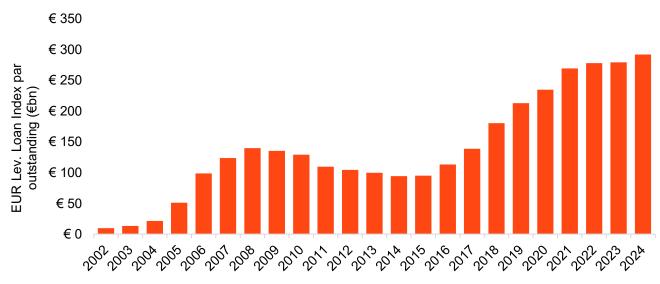
Par amount outstanding (€bn) of the Bloomberg Pan Euro HY Corporate Index, as of each calendar yearend, and August 2024



Source: BlackRock, Bloomberg. As of August 20, 2024. Excludes HY bonds that are not index eligible.

Exhibit 31: The Morningstar EUR Leveraged Loan Index is in excess of €290 billion

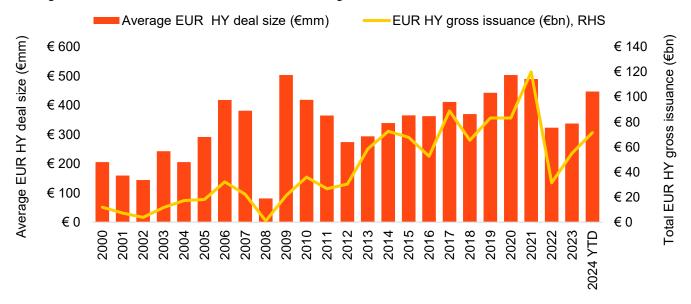
Par amount outstanding (€bn) of the Morningstar EUR Leveraged Loan Index, as of each calendar yearend, and July 2024



Source: BlackRock, Pitchbook LCD, Morningstar. As of July 2024. Excludes leveraged loans that are not index eligible.

Exhibit 32: The average EUR HY deal size has rebounded in 2024, to €446 million

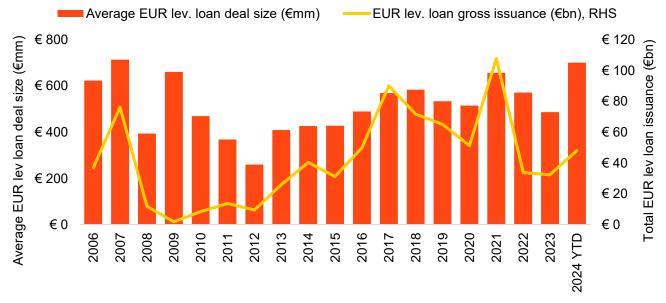
Average EUR HY deal size (€mm) and total USD HY gross issuance (€bn)



Source: BlackRock, Dealogic (ION Analytics). As of September 1, 2024. Excludes private placements not reported to Dealogic.

Exhibit 33: The average new EUR leveraged loan deal in 2024 is close to €700 million

Average EUR leveraged loan deal size (in €mm) and total annual gross issuance (in €bn, RHS), by calendar year; new institutional money shown for each category



Source: BlackRock, Pitchbook LCD. As of September 1, 2024. Excludes loans that are not index-eligible.

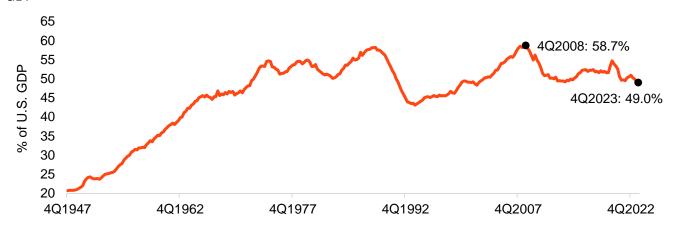
Growth driver #4: Shifts in the bank lending ecosystem

Since the peak in 4Q2008, U.S. bank lending as a share of overall U.S. GDP has declined by approximately ten percentage points (Exhibit 34). Some forces behind this trend have been in place for a while, namely, the range of new requirements and restrictions placed on U.S. banks in the years following the GFC (other regions enacted their own versions of reforms). These include but are not limited to the 2010 Dodd-Frank Act (parts of which were rolled back in 2018) and the 2013 leveraged lending guidance. By contrast, some developments have been more recent, such as the potential for revised capital requirements related to the 2023 U.S. regional banking disruption and the pending finalization of "Basel III Endgame."

For purposes of discussion around driver #4, we focus on the U.S. As shown in Exhibit 35, the U.S. is less reliant upon banks to finance the private sector than other developed market peers such as the Euro Area and the United Kingdom. We believe this is a direct reflection of the growth of the private debt market: North America represented the largest regional share, by far, of private debt AUM, at 61% as of year-end 2023. The very sizable and liquid debt capital markets in the U.S. have also likely played a role, in our view.

That said, we expect at least some other countries will eventually move in this direction. In the Euro Area, for example, European Central Bank President Christine Lagarde has underscored (in her public remarks) the importance of developing a <u>Capital Market Union (CMU)</u> to finance the economy's digital and decarbonization initiatives. She has also suggested that the lack of a CMU may be a factor in the Euro Area's lagging productivity relative to the U.S.

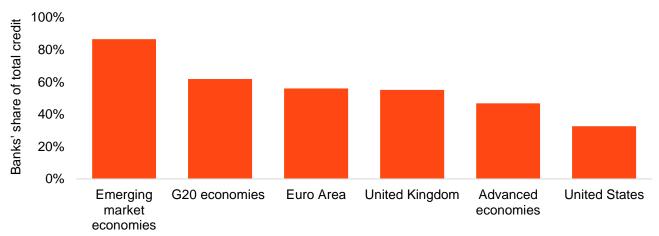
Exhibit 34: The share of bank lending to overall U.S. economic activity has declined post-GFC U.S. bank lending to the domestic private non-financial sector (at market value), as a percentage of U.S. GDP



Source: BlackRock, Bank for International Settlements. As of 4Q2023 (most recent as of August 22, 2024)

Exhibit 35: Relative to many other regions, the U.S. is somewhat less reliant upon the banking system for financing the private sector

Banks' share of total credit provided to the private non-financial sector - select regions



Source: Bank for International Settlements, BlackRock. As of December 31, 2023 (most recent available). FOR QUALIFIED, PROFESSIONAL, INSTITUTIONAL AND WHOLESALE INVESTORS/ PROFESSIONAL CLIENTS ONLY | NOT FOR PUBLIC DISTRIBUTION

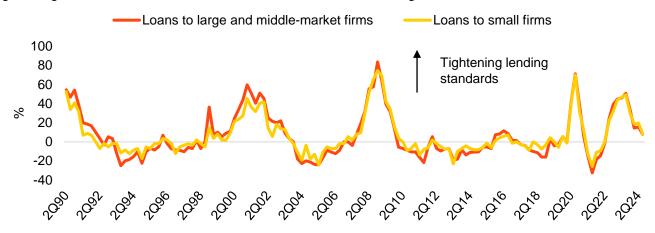
Bank lending standards have eased, but remain tight vs. history

The Federal Reserve's Senior Loan Officer Opinion Survey (SLOOS) offers a glimpse into U.S. bank lending standards from quarter to quarter. (Importantly, this survey measures the *change* from quarter to quarter, not necessarily a *level* of bank lending.) Exhibits 36 and 37 illustrate that during market disruptions and economic downturns (i.e., early 2000s recession, 2007-2009 GFC, early 2020 pandemic, and March 2023 U.S. regional banking disruption), bank lending is associated with tighter standards (terms) and higher costs.

And while the tightening in bank lending standards (and costs) have both eased from their local peaks of 2023, bank lending is not "easy" in a historical context.

Exhibit 38 illustrates this using a set of "special questions" included in the <u>July 2024 SLOOS</u>, which asked the 65 domestic banks surveyed to assess their current level of lending standards over a broader history (since 2005). Indeed, most responses across all categories indicated that lending standards are currently near the historical midpoint. Notably though, nearly a quarter of banks, on average across categories, reported that standards are tighter than historical norms (again, Exhibit 38).

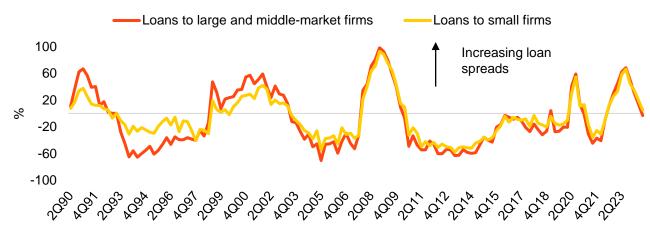
Exhibit 36: Bank lending standards have moderated vs. the tightening seen in 2022-2023 Net percentage of domestic respondents to the July 2024 Senior Loan Officer Opinion Survey (SLOOS) tightening standards for commercial & industrial (C&I) loans to large/middle-market and small firms



Source: BlackRock, Board of Governors of the Federal Reserve System. July 2024 SLOOS was released on August 5, 2024. The SLOOS defines large/middle-market firms as those with annual sales of \$50 million or more. Small firms are defined as those with less than \$50 million of annual sales.

Exhibit 37: The cost of bank credit has also eased from the local peak, in 2023

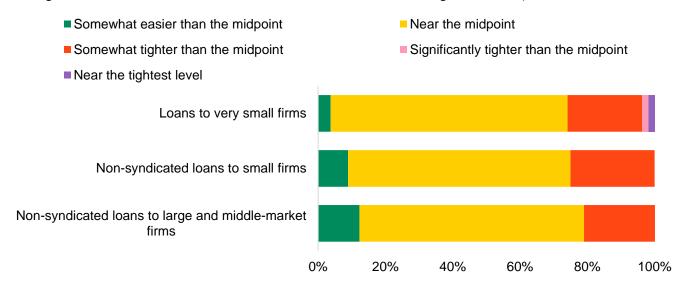
Net percentage of domestic respondents to the July 2024 Senior Loan Officer Opinion Survey (SLOOS) increasing spreads of loan rates (over banks' cost of funds) to large/middle-market and small firms



Source: BlackRock, Board of Governors of the Federal Reserve System. July 2024 SLOOS was released on August 5, 2024. The SLOOS defines large/middle-market firms as those with annual sales of \$50 million or more. Small firms are defined as those with less than \$50 million of annual sales.

Exhibit 38: Over a longer-term history, bank lending standards are not "easy"

Respondents to the July 2024 SLOOS were asked: For each loan category, describe the current level of lending standards for C&I loans and/or credit lines, relative to the range of 2005 – present.



Source: Federal Reserve Board July 2024 Senior Loan Officer Opinion Survey (released August 5, 2024), BlackRock. "Large and middle-market firms" are defined as those with annual sales of \$50 million or more. "Small firms" are defined as those with less than \$50 million of annual sales. "Very small firms" are defined as those with annual sales of less than \$5 million.

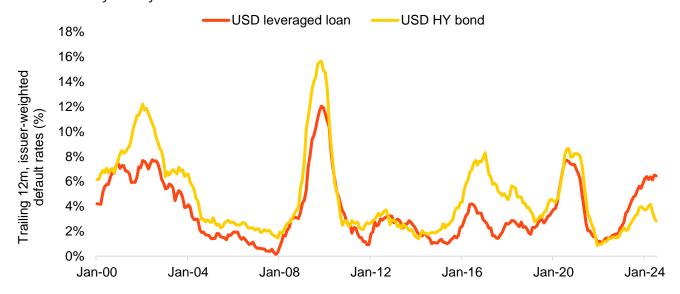
Why the signal from SLOOS may be different this time

Notably, while the SLOOS has historically been an important barometer for macro credit conditions, the survey has not had the same relationship vis-à-vis economic pressures in the current cycle, in our view. Exhibit 39 highlights this trend by showing that issuer-weighted default rates for the universe of USD HY bonds and leveraged loans remain below the previous peaks observed during periods of bank lending standard tightening and economic downturns (especially for HY bonds).

Over the past few years, the resilient U.S. growth backdrop has contributed to this by giving corporates some "cushion" to navigate a higher interest rate environment. However, we believe the growth of private debt has also played a role in mitigating the negative consequences of tightening bank lending.

Exhibit 39: USD corporate default rates did not reach the peak of prior cycles

Trailing 12-month, issuer-weighted default rates for the universe of USD HY bonds and USD leveraged loans tracked by Moody's



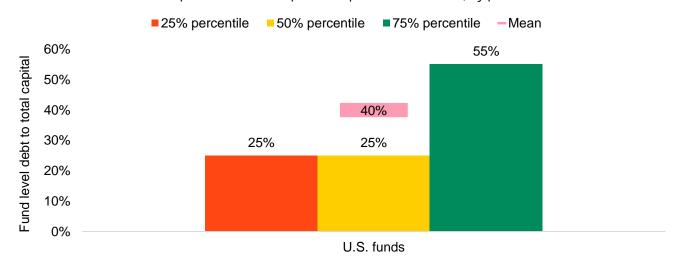
Source: BlackRock, Moody's. As of July 31, 2024 (most recent available as of August 20, 2024).
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The growth of private debt is a net positive for financial stability, in our view

We believe the evolution of private debt is a net positive for financial stability, driven by these factors:

- **Diversified funding sources:** The growth of private debt over the past several years has allowed firms to <u>diversify their funding sources</u> and reduce their reliance on traditional lending channels: banks and public debt markets. We believe this structural shift in the financial system supported the relative resilience of USD HY and leveraged loan corporate default rates (Exhibit 39) despite a sharp tightening in bank lending standards and an increase in interest rates / borrowing costs.
- **Asset-liability matching:** As discussed earlier, most private debt investors are "buy and hold" oriented, and will match their long-term capital commitments with long-term investments. This stands in contrast to the funding structure in parts of the U.S. banking system, where short-term deposits are often used to fund longer-term loans resulting in greater potential for asset-liability mismatches.
- Lower leverage than other financing channels: While private debt funds often use fund-level leverage to enhance potential returns, this leverage is quite modest. A research paper titled "A Survey on Private Debt Funds" found that U.S. private debt funds tend to use fund-level bank debt, with average leverage of 40% and median leverage of 25% in the sample of 36 firms (Exhibit 40). Importantly, the sample's use of leverage was "significantly lower" than that of banks and other non-bank lenders (e.g., CLOs, finance companies). Indeed, using data from the FDIC's Quarterly Banking Profile as of 1Q2024, we calculate an aggregate Tier 1 Leverage ratio (Average Assets / Tier 1 Leverage Capital) of 11.1x for FDIC-insured commercial banks and savings institutions. The paper also notes that 67% of European private debt funds sampled (136) did not use any leverage (average leverage was 11% of total capital). And across both geographies, equity financing exceeded 45% of total capital (again, among funds sampled).
- **Non-traded nature:** We believe the non-traded nature of private debt loans supports financial stability, as there are mutual incentives for borrowers and lenders to maintain a *long-term* working relationship. A research paper titled "Are Direct Lenders More Like Banks or Arm's-Length Investors?" finds that private debt borrowers and lenders are often willing to work together to create better outcomes and to preserve the relationship with their counterparty (e.g., a private equity sponsor may opt to include an equity injection in a renegotiation to demonstrate good faith to a lender).

Exhibit 40: U.S. private debt funds tend to use modest fund-level leverage, per a recent study Fund-level debt-to-total-capital ratio for sampled U.S. private debt funds, by percentile



Source: National Bureau of Economic Research (NBER) Working Paper Series, BlackRock. Working Paper 30868: "A Survey on Private Debt Funds" by Joern Block, Young Soo Jang, Steven N. Kaplan, Anna Schulze. © 2023 by Joern Block, Young Soo Jang, Steven N. Kaplan, and Anna Schulze. All rights reserved.

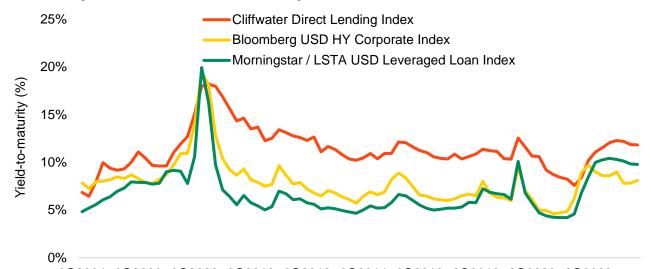
¹ Joern Block, Young Soo Jang, Steven N Kaplan, and Anna Schulze, "A survey of private debt funds," Technical Report, National Bureau of Economic Research 2023.

² Young Soo Jang, "Are Direct Lenders More Like Banks or Arm's-Length Investors?," Available at: https://ssrn.com/abstract=4529656. 2024.

Performance update: resilient in aggregate, but dispersed

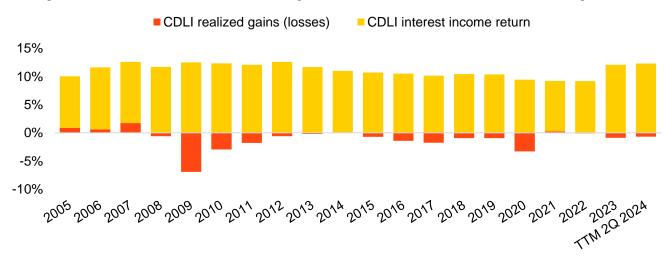
Exhibits 41 through 43 illustrate the yield, income, and total return performance trends of U.S. direct lending (the largest strategy and region within private debt) using the CDLI (which measures unlevered returns, gross of fees). As shown in Exhibit 41, private debt has historically offered a notable "yield pick-up" vs. public markets. This incremental yield reflects the additional cost paid by the borrower in exchange for the certainty and ease of execution provided by the lender (as discussed previously).

Exhibit 41: U.S. direct lending has historically offered a yield "pick-up" vs. public markets Average index yield-to-maturity levels for the Cliffwater Direct Lending Index (CDLI), Morningstar/LSTA USD Leveraged Loan Index, and the Bloomberg USD HY Corporate Index



3Q2004 3Q2006 3Q2008 3Q2010 3Q2012 3Q2014 3Q2016 3Q2018 3Q2020 3Q2022 Source: Cliffwater LLC, Bloomberg, Morningstar / LSTA, Pitchbook LCD, BlackRock. As of 2Q2024 (most recent available for the CDLI, as of August 20, 2024). Chart shows yield-to-maturity for all three indices. **The figures shown relate to past performance. Past performance is not a reliable indicator of current or future results.** Index performance returns do not reflect any management fees, transaction costs or expenses. Indices are unmanaged and one cannot invest directly in an index.

Exhibit 42: Realized losses for the CDLI were modest during the Fed's recent hiking cycle Trailing 12-month income return and realized gains (losses) for the Cliffwater Direct Lending Index



Source: Cliffwater Direct Lending Index, BlackRock. As of June 30, 2024 (most recent available as of August 20, 2024). Realized gains can be driven by equity stubs, warrants, and gains on exited investments. These were more common in 2005-2007, when second lien and mezzanine loans were a greater portion of the CDLI. **The figures shown relate to past performance. Past performance is not a reliable indicator of current or future results.** Index performance returns do not reflect any management fees, transaction costs or expenses. Indices are unmanaged and one cannot invest directly in an index. We exclude unrealized gains and losses in this chart. Long-term unrealized gains (losses) are approximately zero, as they either convert to net realized losses upon a credit default, or are reversed when principal is fully repaid.

As Exhibit 42 illustrates, realized losses have typically been modest in the context of the interest income generated by the asset class. After an extremely low period of realized loss rates in 2021 and 2022, the CDLI loss trend has shown some normalization but remains contained. 2Q2024 data for the CDLI (most recent available) highlighted realized loss rates (from payment defaults or restructurings) that, while higher vs. 2021-2022, remained moderate at just 66bp for the trailing twelve months ended 2Q2024.

Exhibit 43 highlights CDLI's total return performance against two widely-tracked indices in the public credit market: the Bloomberg USD HY Corporate Index and the Morningstar/LSTA USD Leveraged Loan Index. Of the 19 annual periods (2005 – 2023) since the CDLI's inception, the CDLI has outperformed these HY bond and leveraged loan indices (on a total return basis) in 13 of these years.

One key variable related to total performance (between the asset classes) is duration exposure. As a fixed-rate asset class, the USD HY bond market has exposure to duration (i.e., price sensitivity to a change in interest rates). This contrasts the CDLI and leveraged loan markets, which are floating-rate asset classes.

As such, the CDLI and leveraged loan indices would be expected to perform better in a rising rate environment. Conversely, a sharp rally in interest rates (from current levels) would benefit the total return performance of the USD HY market.

Exhibit 43: The CDLI – a proxy for U.S. direct lending – has a solid track record of total return performance

Calendar year total return comparisons (2005 - 2023), 1Q2024 and 2Q2024. Green = largest total return in the period. Red = smallest total return in the period.

	Cliffwater Direct Lending Index	Bloomberg USD HY Corporate Bond Index	Morningstar / LSTA USD Leveraged Loan Index
2005	10.1%	2.7%	5.1%
2006	13.7%	11.8%	6.8%
2007	10.2%	1.9%	2.0%
2008	-6.5%	-26.2%	-29.1%
2009	13.2%	58.2%	51.6%
2010	15.8%	15.1%	10.1%
2011	9.8%	5.0%	1.5%
2012	14.0%	15.8%	9.7%
2013	12.7%	7.4%	5.3%
2014	9.6%	2.5%	1.6%
2015	5.5%	-4.5%	-0.7%
2016	11.2%	17.1%	10.2%
2017	8.6%	7.5%	4.1%
2018	8.1%	-2.1%	0.4%
2019	9.0%	14.3%	8.6%
2020	5.5%	7.1%	3.1%
2021	12.8%	5.3%	5.2%
2022	6.3%	-11.2%	-0.8%
2023	12.1%	13.4%	13.3%
1Q2024	3.0%	1.5%	2.5%
2Q2024	2.6%	1.1%	1.9%

Source: Cliffwater LLC, Bloomberg, Morningstar / LSTA, Pitchbook LCD, BlackRock. As of 2Q2024 (most recent available for the CDLI as of August 20, 2024). The CDLI measures the unlevered, gross of fees performance of U.S. middle market corporate loans, as represented by the underlying assets of Business Development Companies ("BDCs"), including both exchange traded and non-traded BDCs, subject to certain eligibility requirements. **The figures shown relate to past performance. Past performance is not a reliable indicator of current or future results.** Index performance returns do not reflect any management fees, transaction costs or expenses. Indices are unmanaged and one cannot invest directly in an index.

Realized loss rates have also compared favorably to the <u>public markets</u>, as shown in Exhibit 44. (Note: when comparing public vs. private debt, we view loss rates as more informative than default rates, driven by the increased prevalence of covenants in private debt structures. For example, tripping a covenant provides private lenders the time and legal position to address issues in advance of a payment default).

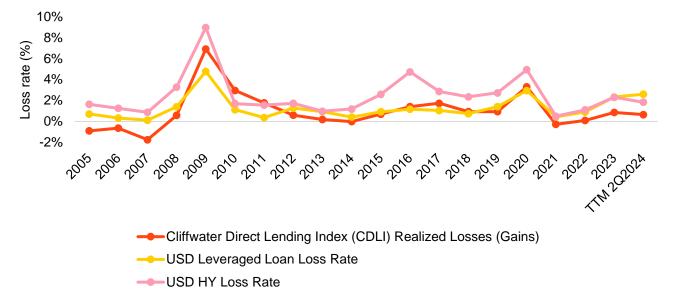
In periods of financial market stress, such as the GFC of 2007-2009, the energy sector disruption of 2014-2015, and the pandemic in early 2020, net realized losses for the CDLI were either similar to or lower than our estimates of loss-given-default in the USD HY bond and leveraged loan markets (again, Exhibit 44).

We attribute this relative resilience of direct lending to a few factors, namely: (1) the extensive due diligence and underwriting in the investment selection process, (2) structural protections, as the loans are senior secured in the capital structure, as well as covenants (3) ongoing monitoring to help mitigate downside risk, and (4) having a strategic partner who can work collaboratively with the company to provide needed support over the long-term if required. This can often result in a more efficient process for negotiating amendments vs. what would otherwise occur in the syndicated public market, where a wide array of lenders would need to agree on a potential change.

On the following page, we use the Lincoln International Valuation and Opinions Group Proprietary Private Market Database (Lincoln VOG database), another widely-tracked, third-party index, to understand aggregate covenant default trends in the private debt sector. For context, Lincoln is an independent valuation advisor specializing in illiquid alternative investments. As of 2Q2024, Lincoln's VOG database included approximately 5,500 U.S. operating companies, representing over \$200 billion of total privately held principal and invested capital (primarily held by PE sponsors). The median LTM EBITDA was \$42.4 million as of 2Q2024.

Exhibit 44: Direct lending loss rates have compared favorably vs. public markets in recent years

Realized annual and trailing 12-month 2Q2024 loss rates for the Cliffwater Direct Lending Index, and trailing 12-month estimated loss rates for the universe of USD leveraged loans and HY bonds tracked by Moody's (calculated as the actual issuer-weighted trailing 12-month default rate per Moody's multiplied by one minus the average historical recovery rate)



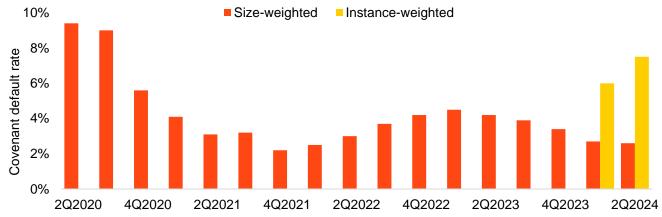
Source: BlackRock, Moody's, Cliffwater. For the CDLI, we show annual and trailing 12-month realized loss rate data for 2Q2024 (most recent as of August 20, 2024). We assume a 40% recovery rate for HY and a 60% recovery rate for leveraged loans (both in line with the historical average), to arrive at estimated loss rates given the Moody's issuer-weighted, trailing 12-month default data. The HY and leveraged loan loss rates reflect the universe of HY bonds and leveraged loans tracked by Moody's. **The figures shown relate to past performance. Past performance is not a reliable indicator of current or future result.** Index performance returns do not reflect any management fees, transaction costs or expenses. Indices are unmanaged and one cannot invest directly in an index. Realized gains can be driven by equity stubs, warrants, and gains on exited investments. These were more common in 2005-2007, when second lien and mezzanine loans were a greater portion of the CDLI.

Lincoln International defines a 'default' as a covenant default, not necessarily a monetary one. This means a borrower default may not lead to lender losses but instead may give lenders time and a legal position to address issues *before* a payment default occurs.

Lincoln's size-weighted default rate fell in 2Q2024 to 2.6%, marking the *fifth consecutive quarterly decline*. We believe this pattern of improvement is due to the aforementioned factors – namely, the collaborative relationship between private debt borrowers and lenders. That said, there are some nuances under the surface. For example, the *instance-weighted* default rate (which we view as akin to an issuerweighted statistic) for the Lincoln VOG database *increased* from 6.0% in 1Q2024 to 7.5% in 2Q2024.

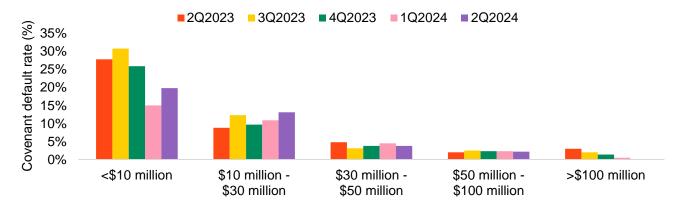
Exhibit 45 illustrates the material difference in levels and directional change (in recent quarters) between the two metrics. The instance-weighted default rate is affected more by activity from smaller borrowers, which tend to have higher covenant default rates (Exhibit 46). Such differences in default methodology (i.e., par-weighted vs. issuer-weighted) are also frequently encountered in the public (liquid) corporate credit universe.

Exhibit 45: Nuances between size-weighted and instance-weighted default metricsAggregate covenant default rate, including size-weighted and instance-weighted, for the U.S. portfolio companies included in the Lincoln International VOG Proprietary Private Market Database



Source: Lincoln International Valuations & Opinions Group Proprietary Private Market Database, BlackRock. As of 2Q2024. A default is defined by Lincoln as a covenant default (not necessarily a monetary default). The size-weighted calculation considered the total net debt balance for each of the portfolio companies that had a defaulting security in the respective quarter. The instance-weighted calculation is only available for 1Q2024 and 2Q2024. © 2023 Lincoln Partners Advisors LLC. All rights reserved. Used with permission. Third-party use is at user's own risk.

Exhibit 46: Covenant default rates vary by borrower size, with smaller firms leading Covenant default rates (size-weighted, by annual EBITDA) for companies in the Lincoln International VOG Proprietary Private Market Database



Source: Lincoln International Valuations & Opinions Group Proprietary Private Market Database, BlackRock. As of 2Q2024. A default is defined by Lincoln as a covenant default (not necessarily a monetary default). The size-weighted calculation considered the total net debt balance for each of the portfolio companies that had a defaulting security in the respective quarter. © 2023 Lincoln Partners Advisors LLC. All rights reserved. Used with permission. Third-party use is at user's own risk.

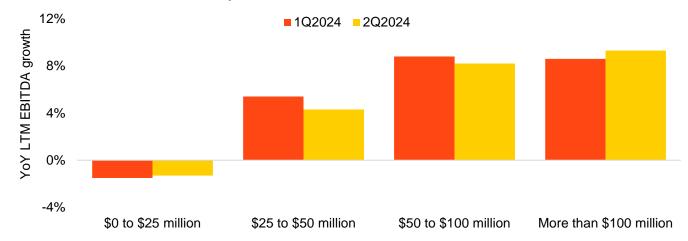
Private debt: Not a "one size fits all" asset class

Smaller borrowers have generally experienced higher covenant default rates than larger ones in the database (again, Exhibit 46), partly due to more restrictive covenants in the lower middle market (as smaller EBITDA deals are typically underwritten with tighter covenants). It also reflects, in our view, the tendency of small firms to have less diversification (product, geography, customer, etc.), thinner financial cushions (Exhibit 47), and fewer economies of scale than their larger peers – all of which can make smaller businesses more vulnerable in certain macroeconomic environments.

In addition to company size, sector exposures can also influence default and earnings experiences, as shown in Exhibits 48 and 49. This is because each industry is subject to a unique set of growth drivers and headwinds, creating different degrees of cyclicality, pricing power, operational agility, and financial flexibility.

These trends are consistent with the dispersion we <u>outlined</u> in February 2024 across the various subsets of private debt strategies, vintages, and portfolio characteristics.

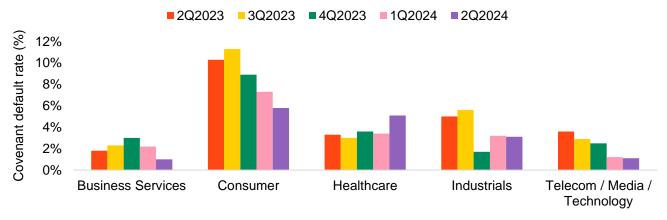
Exhibit 47: EBITDA growth has been challenged at the very low end of the size spectrum Year-over-year LTM EBITDA growth by company size (as measured by annual EBITDA) for companies in the Lincoln International Proprietary Private Market Database



Source: Lincoln International Valuations & Opinions Group Proprietary Private Market Database, BlackRock. As of 2Q2024. © 2023 Lincoln Partners Advisors LLC. All rights reserved. Used with permission. Third-party use is at user's own risk. LTM = last twelve months.

Exhibit 48: Covenant default rates vary by industry, with Consumer leading

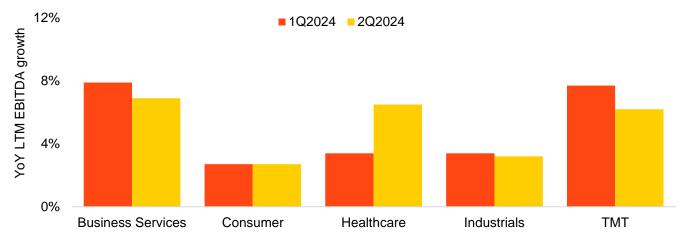
Covenant default rates by industry (size-weighted), for companies in the Lincoln International Proprietary Private Market Database



Source: BlackRock, Lincoln International Valuations & Opinions Group Proprietary Private Market Database. As of 2Q2024. Note: A default is defined as a covenant default and not a monetary default. The analysis was performed based on a size-weighted approach, which considered the total net debt balance for each of the portfolio companies that had a defaulting security in the respective quarter. © 2023 Lincoln Partners Advisors LLC. All rights reserved. Used with permission. Third-party use is at user's own risk.

Exhibit 49: EBITDA growth has varied by sector

Year-over-year LTM EBITDA growth by industry, for companies in the Lincoln International Proprietary Private Market Database



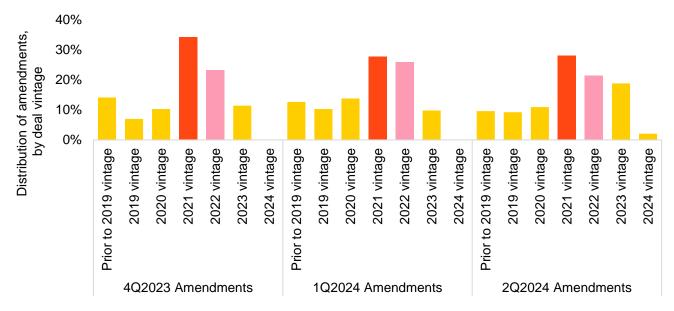
Source: Lincoln International Valuations & Opinions Group Proprietary Private Market Database, BlackRock. As of 2Q2024. © 2023 Lincoln Partners Advisors LLC. All rights reserved. Used with permission. Third-party use is at user's own risk.

The role of covenant amendments in private debt

Given the higher cost of capital environment, which has prevailed in the U.S. since the Federal Reserve began its hiking cycle in March 2022, it is perhaps unsurprising that some subsets of the private debt universe are seeking flexibility.

In the last twelve months, which ended with 2Q2024, Lincoln International identified more than 780 executed amendments, impacting 16% of companies in its coverage. 12% of companies completed multiple amendments within that timeframe (a level consistent with 1Q2024), with the Business Services sector generating one-quarter of the repeat amendment activity, per data compiled by Lincoln. And as Exhibit 50 illustrates, 2021 and 2022 vintages (formed amid a relatively low-interest rate environment) have generated a large share of amendments in recent quarters.

Exhibit 50: 2021 and 2022 vintage deals generated 49% of all amendments in 2Q2024 Distribution of covenant amendments by deal vintage for 4Q2023, 1Q2024 and 2Q2024



Source: Lincoln International Valuations & Opinions Group Proprietary Private Market Database, BlackRock. As of 2Q2024. © 2023 Lincoln Partners Advisors LLC. All rights reserved. Used with permission. Third-party use is at user's own risk.

Pricing amendments were, by far, the most common (66.0%). Loans which repriced in 2Q2024 benefited from an average coupon reduction of 85bp, according to Lincoln. And 63% of such activity occurred in companies with annual EBITDA greater than \$50 million. Maturity extensions (24.9%) were the second most common, providing, on average, 18.5 months of extension.

Private equity sponsor infusions of equity (21.6%) were the third most frequent, typically targeted to cover liquidity shortfalls (Exhibit 51) but also to cure covenants and provide growth equity. And finally, covenant holidays (11.6%) were the fourth most common type of amendment, typically providing 8.2 months of holiday.

The value of a sponsor

Sponsor equity infusions illustrate how private equity sponsor ownership can benefit both borrowers and lenders. Sponsors are financially incentivized to keep borrowers current (i.e., the capital they've already invested). Additionally, sponsors, often large and investment-grade rated firms, are well-equipped to provide liquidity support.

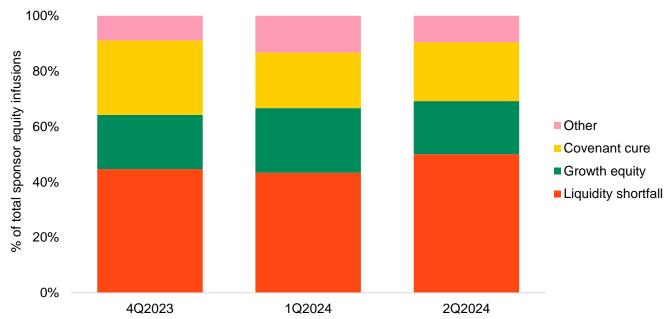
Data from KBRA DLD – another third-party data provider that tracks direct lending defaults – also highlights the "sponsor vs. non-sponsor" differential in defaults and losses.

The KBRA DLD Direct Lending Index included about 2,400 borrowers as of August 6th, 2024. KBRA DLD default metrics are instance-weighted (not size-weighted), and a "default" is defined as a bankruptcy, payment default, or distressed exchange. As of August 2024, KBRA DLD's direct lending universe experienced a 1.9% trailing twelve-month (TTM) default rate, comprised of a 1.5% default rate for sponsored issuers and a 3.3% default rate for non-sponsored issuers (Exhibit 52).

Beyond the *frequency* of defaults, the *severity* of such actions also has important implications for investors and lenders. To track this, we turn to recovery and loss rates. KBRA DLD also details implied losses (given default) – a metric that provides insight into how much capital the lender potentially lost. Notably, sponsor-related direct lending experienced a lower implied loss rate (at 0.7%) than its non-sponsored peer (1.3%), as shown in Exhibit 53.

Exhibit 51: Sponsors can provide an extra layer of financial support to borrowers

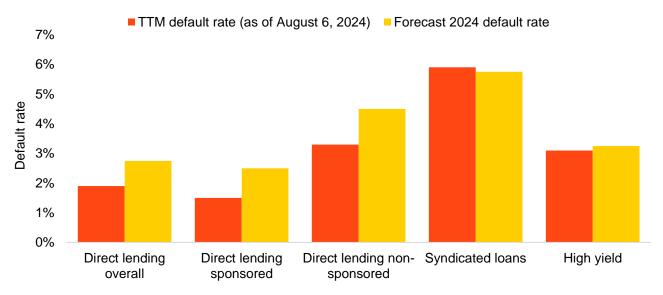
Share of sponsor equity infusions based on the purpose for infusion, by count, for affected companies in the Lincoln International Proprietary Private Market Database



Source: Lincoln International Valuation & Opinions Group Proprietary Private Market Database, BlackRock. As of 2Q2024. "Other" reflects any earmarked uses of the sponsor equity infusion not reflected in the remaining categories. © 2023 Lincoln Partners Advisors LLC. All rights reserved. Used with permission. Third-party use is at user's own risk.

Exhibit 52: Direct lending default rates remain below KBRA DLD's forecasts

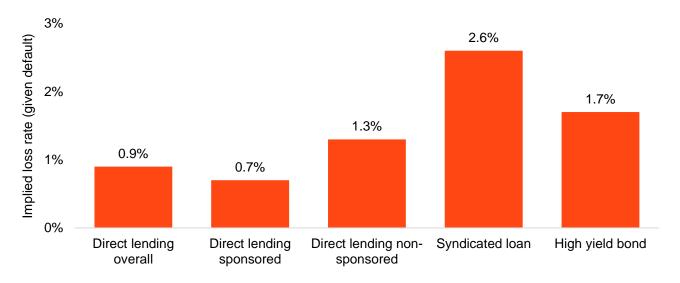
Trailing 12-month (TTM) default rate and 2024 forecast default rate, by issuer count



Source: KBRA DLD, BlackRock. As of August 6, 2024. Defaults include bankruptcies, missed payments, distressed debt exchanges, and/or restructurings. Forecasts are KBRA's. **There is no guarantee any forecasts may come to pass.**

Exhibit 53: Direct lending has the lowest implied loss rates (given default)

Trailing 12-month (TTM) implied loss rate (given default)



Source: KBRA DLD, Solve, BlackRock. Loss rate given default = default rate * (1 – implied recovery rate). Chart uses KBRA analysis completed in July 2024 and August 2024. **There can be no guarantee any forecasts will come to pass.**

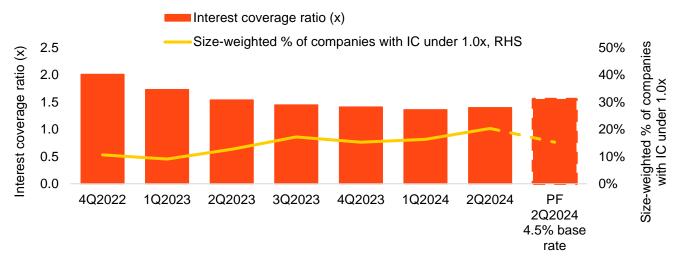
Fundamentals show relative resilience

In aggregate, floating-rate private debt borrowers have generated relatively resilient fundamentals despite the elevated cost of capital. Using data from Lincoln International's Proprietary Private Market Database, Exhibits 54 and 55 illustrate that interest coverage (IC) and fixed charge coverage (FCC) ratios for U.S. borrowers are holding in relatively well (i.e., not deteriorating sharply).

U.S. companies tracked by Lincoln experienced an average year-over-year LTM EBITDA growth of 5.3% in 2Q2024. In fact, year-over-year LTM EBITDA growth was 4.2% or higher in every quarter since late 2021. The ability to grow in a capital-efficient way is critical in a higher-rate environment, in our view. The proforma (PF) 4.5% base rates in Exhibits 54 and 55 illustrate the improvement that rate cuts (from the current 3-month SOFR level of 5.35%) could provide.

Exhibit 54: Interest coverage ratios for U.S. firms have been hovering near 1.4x

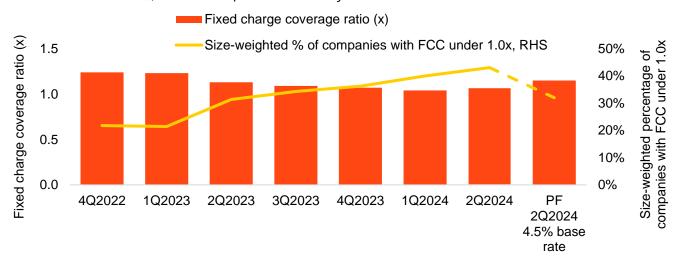
Size-weighted actual and pro forma IC ratios, and size-weighted percentage of companies with IC ratios under 1.0x (RHS), for U.S. companies tracked by Lincoln International



Source: BlackRock, Lincoln International Valuations & Opinions Group Private Market Proprietary Database. Captures data as of 2Q2024. Calculations: Interest coverage = LTM EBITDA / Interest. © 2023 Lincoln Partners Advisors LLC. All rights reserved. Used with permission. Third-party use is at user's own risk.

Exhibit 55: Fixed charge coverage ratios have been in a narrow range around 1.1x

Size-weighted actual and pro forma FCC ratios, and size-weighted percentage of companies with FCC ratios under 1.0x (RHS), for U.S. companies tracked by Lincoln International



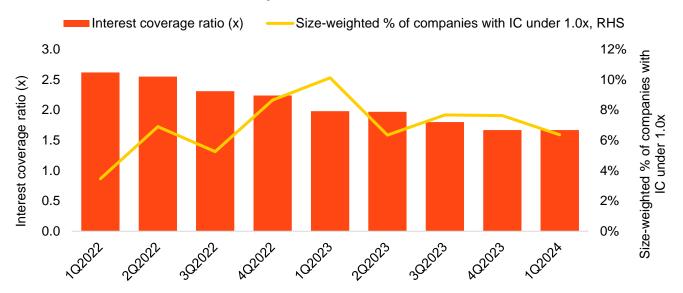
Source: BlackRock, Lincoln International Valuations & Opinions Group Private Markets Proprietary Database. Captures data as of 2Q2024. Calculations: Fixed Charge Coverage Ratio = (LTM EBITDA - Taxes - Capex) / (LTM Interest Expense + (1% * Total Debt)). Capital expenditures ("capex") uses last twelve month ("LTM") capex. If LTM capex is not available, uses next fiscal year ("NFY"), and last fiscal year ("LFY") capex if both LTM capex and NFY capex are unavailable. © 2023 Lincoln Partners Advisors LLC. All rights reserved. Used with permission. Third-party use is at user's own risk.

A similar pattern of relative resilience can be seen using Lincoln International's universe of European borrowers, as highlighted in Exhibits 56 and 57. As of 1Q2024 (most recent available as of this writing) the average IC ratio was 1.67x and the average FCC ratio was 1.09x.

As of 1Q2024, 69.4% of European companies tracked by Lincoln reported year-over-year EBITDA growth in 1Q2024. The average EBITDA growth rate was 10.6% in 1Q2024. This compares to 8.1% average EBITDA growth in 4Q2023 and 5.7% in 3Q2023.

Exhibit 56: Interest coverage ratios for European firms are above 1.6x, on average

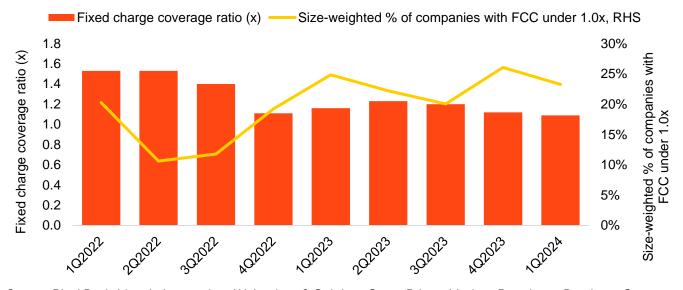
Size-weighted actual IC ratios, and size-weighted percentage of companies with IC ratios under 1.0x (RHS), for European companies tracked by Lincoln International



Source: BlackRock, Lincoln International Valuations & Opinions Group Private Market Proprietary Database. Captures data as of 1Q2024. Calculations: Interest coverage = LTM EBITDA / Interest. © 2023 Lincoln Partners Advisors LLC. All rights reserved. Used with permission. Third-party use is at user's own risk.

Exhibit 57: Fixed charge coverage ratios for European firms averaged 1.09x in 1Q2024

Size-weighted actual FCC ratios, and size-weighted percentage of companies with FCC ratios under 1.0x (RHS), for European companies tracked by Lincoln International



Source: BlackRock, Lincoln International Valuations & Opinions Group Private Markets Proprietary Database. Captures data as of 1Q2024. Calculations: Fixed Charge Coverage Ratio = (LTM EBITDA - Taxes - Capex) / (LTM Interest Expense + (1% * Total Debt)). Capital expenditures ("capex") uses last twelve month ("LTM") capex. If LTM capex is not available, uses next fiscal year ("NFY"), and last fiscal year ("LFY") capex if both LTM capex and NFY capex are unavailable. © 2023 Lincoln Partners Advisors LLC. All rights reserved. Used with permission. Third-party use is at user's own risk.

Pricing compression will vary with market conditions

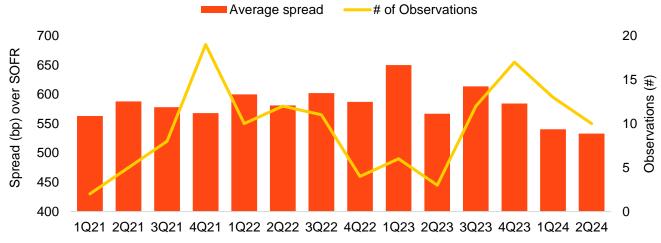
The increased overlap in the addressable market of private and syndicated debt (referenced earlier) is most observable among large borrowers that are suitable to issue in both markets (generally categorized by third-party data provider KBRA DLD as "jumbo" loans of \$1 billion or more). In practice, these jumbo loans often mean a deal would be large enough to be relatively liquid and index-eligible in the syndicated/public debt markets.

The receptive tone of syndicated markets (coupled with other market factors such as limited LBO activity) in 1H2024 has kept pricing competitive for U.S. and European borrowers eligible for both markets. For example, average jumbo spreads in the U.S. fell to S+533bp in 2Q2024 (from the local peak of S+650bp in 1Q2023), marking the third consecutive quarter of tightening, according to KBRA DLD (Exhibit 58). And new issue prices continued to hover near the highs (at \$98.7), reflective of smaller issue discounts and fees, as illustrated in Exhibit 59. New issue jumbo loans in Europe demonstrated a similar trend, according to KBRA DLD, with spreads tightening from E+650-750bp in 1Q2023 to E+450-700bp in 2Q2024. (E represents the Euro Interbank Offered Rate (EURIBOR)).

While average spreads on new issue jumbo loans are tight relative to recent historical standards, elevated base rates, in our view, allow lenders to tighten spreads further while still capturing relatively attractive allin yields.

Exhibit 58: Jumbo spreads are at the tightest levels since KBRA DLD began the series in 102021

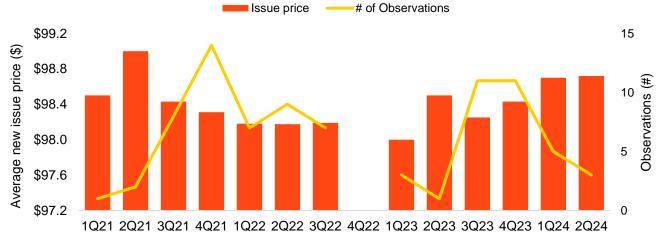
Average spread on jumbo loans (defined as loans \$1 billion or larger) issued, in basis points over SOFR



Source: BlackRock, KBRA DLD. As of 2Q2024. SOFR = Secured Overnight Financing Rate.

Exhibit 59: Jumbo new issue prices are the highest since mid-2021

Issue price on jumbo loans (defined as loans \$1 billion or larger), out of par (\$100)



Source: BlackRock, KBRA DLD. As of 2Q2024.

The receptiveness of syndicated markets has less influence on pricing and terms for smaller borrowers, which are generally *not* as easily able to issue in public debt markets. However, other market factors such as general investor sentiment towards risk, as well as macroeconomic-related risk premiums, can influence spreads for such borrowers.

According to Lincoln International, spreads for these "smaller" borrowers (generally categorized as loans to U.S. businesses with \$40-\$100 million in annual adjusted EBITDA) have compressed from S+575-675bp in 4Q2023 to S+500-600bp in August 2024 (Exhibit 60). Indeed, spreads are now comparable to levels at the most recent market peak in 4Q2021.

As aforementioned, elevated base rates allow lenders to tighten lending spreads across borrower sizes without compromising all-in yields. Data from Lincoln International demonstrates that while spreads in August 2024 are comparable to 4Q2021 levels (i.e., 500–600bp), all-in yields are significantly different (higher): 6.0% - 7.0% in 4Q2021 vs. 9.7% - 10.7% in August 2024 (again, Exhibit 50).

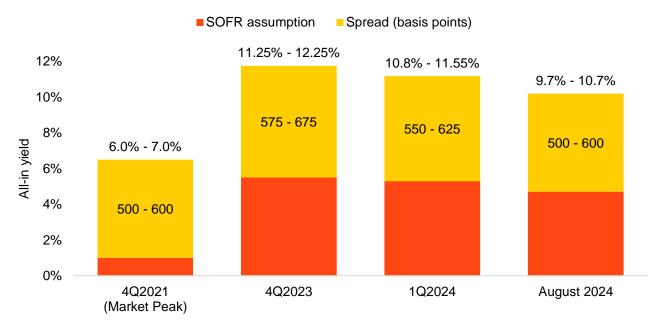
Geography can also influence pricing

Finally, we believe the geography (and currency) of issuance may influence pricing trends due to factors such as country-specific macroeconomic conditions, competition among lenders, varying degrees of depth and availability in financing markets, and different regulatory regimes. This is observable, for example, in the European market and the United Kingdom.

KBRA DLD data demonstrates how these variations may influence new issue pricing for private debt borrowers. For example, private credit spreads for both LBO and non-LBO transactions were wider for euros than for sterling in 2Q2024 (Exhibits 61 and 62). New issue prices demonstrated a similar trend, with loans issued in sterling demonstrating higher new issue prices than loans issued in euros, reflecting smaller issue discounts and fees for sterling issuers (Exhibit 63). While a diverse set of factors influences this, KBRA DLD largely attributes the spread differences in 2Q2024 to the issuance profile during that quarter, with euro-based issuance tending towards smaller borrowers.

Exhibit 60: Higher reference rates offer lenders pricing flexibility without compromising allin yields

Composition of all-in yields for private credit loans to businesses with \$40 million - \$100 million adjusted EBITDA, according to Lincoln International



Source: Lincoln International Valuations & Opinions Group Proprietary Private Market Database, BlackRock. As of August 2024. 4Q2021 assumes a SOFR floor of 1.0%. SOFR = Secured Overnight Financing Rate. © 2023 Lincoln Partners Advisors LLC. All rights reserved. Used with permission. Third-party use is at user's own risk.

Exhibit 61: Both average LBO spreads...

Average private credit spreads for leveraged buyout (LBO) transactions during the quarter, by currency



Source: KBRA DLD Private Data, BlackRock. As of 2Q2024. Data is trued up quarterly to reconcile submissions.

Exhibit 62:...and average non-LBO spreads were tighter for loans issued in Sterling in 2Q2024 Average private credit spreads for non-LBO transactions during the quarter, by currency



Source: KBRA DLD Private Data, BlackRock. As of 2Q2024. Data is trued up quarterly to reconcile submissions.

Exhibit 63: Loans issued in Sterling had a higher original issue price than loans issued in Euros for the first time since KBRA DLD began tracking the data in 1Q2023

Average new issue price (out of 100) during the quarter, by currency



Source: KBRA DLD Private Data, BlackRock. As of 2Q2024.

For Exhibits 61, 62, and 63: "All" currencies include EUR, GBP, USD, SEK, NOK, and CHF.

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