

Private Debt Yield Decomposition

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The attractive returns that direct lending can provide, compared to public debt, are commonly broken down into a combination of illiquidity premium and complexity premium. We find this framework to be a bit wanting.

Turning to our proprietary direct lending database, we are able to “decompose” yields into their component parts to estimate how different loan components affect the yield of a direct lending transaction.

Similar to the Drivers of Investment Returns our private equity team uses to determine whether a GP has been lucky or good, our private debt team can use this decomposition tool to identify true premia and potential sources of outperformance.

Methodology

FIGURE 1: DESCRIPTIVE STATISTICS

LOANS	ALL	US	EUROPE
Count	6,457	5,482	975
KPI	FIRST QUARTILE	MEDIAN	THIRD QUARTILE
EBITDA	\$16.6 million	\$31.3 million	\$57.0 million
LTV	38.5%	46.8%	55.4%
Leverage	3.3x	4.0x	4.7x

Source: StepStone Group, 30 June 2023

The analysis is based on StepStone’s extensive database of loans made to middle-market companies. While this dataset includes roughly 2.5 million data points on more than 22,500 loan tranches originated between 2001 to 2022, for this analysis, we focus solely on loan tranches made since 2006 in North America (US) and Europe (EU), excluding vintages with low sample size and equity-like instruments.

Direct lending loans often contain multiple tranches that are ranked *pari passu*. That is a single transaction can contain a term loan, a revolving facility, and a delayed draw term facility. To avoid any bias due to structuring, we have only included the “main tranche” of each transaction, i.e., the tranche with the largest facility. Furthermore, the study targets loans made to companies whose EBITDA is between \$0 and \$300 million. Outliers and loans with incomplete data were excluded.

We employ a pooled ordinary least squares regression to estimate the yield using several variables representing loan components: capital structure (first lien, unitranche, second lien, and mezzanine); LTV; leverage; EBITDA; ownership (i.e., sponsored or non-sponsored); and the number of covenants, as well as controlling for sectors, vintages, and regions.

To determine the contribution of each component, we

created dummy variables for each loan and deal characteristic.

We then estimated a “Base Case Loan” (BCL), which represents the loan with the lowest yield; on average, any components that deviate from the BCL have increased yields. The BCL also captures common attributes such as the risk-free rate, credit and liquidity risks, and a base complexity premium inherent to the asset class. When estimating the BCL, we have distinguished between the risk-free base rate and the gross spread.

Base loan factors

The first step of the analysis was using local regressions or market standards to determine the buckets. By examining the average yield for the buckets within each component, we determined that first-lien loans with LTV below 40%, leverage between 3x–4.5x, EBITDA above \$75m, featuring one or two covenants, and being sponsor-backed, result in the lowest yield achievable. Thus, we expect those loans to represent the lowest possible risk as we assume that any further increase in yield due to different loan characteristics is the result of a rise in risk.

FIGURE 2: BASE CASE LOAN

CAPITAL STRUCTURE	LTV	LEVERAGE	EBITDA	OWNERSHIP	COVENANTS
First-lien	< 40%	3.0x-4.5x	> \$75M	Sponsored	1-2

Source: StepStone Group, 30 June 2023

The BCL yield is then disaggregated in two different factors:

Risk-Free Rate

The risk-free rate represents the average base rate to which the different premia are added. The base rate is represented by the maximum between the LIBOR floor and LIBOR, which was still in use during the period under investigation.

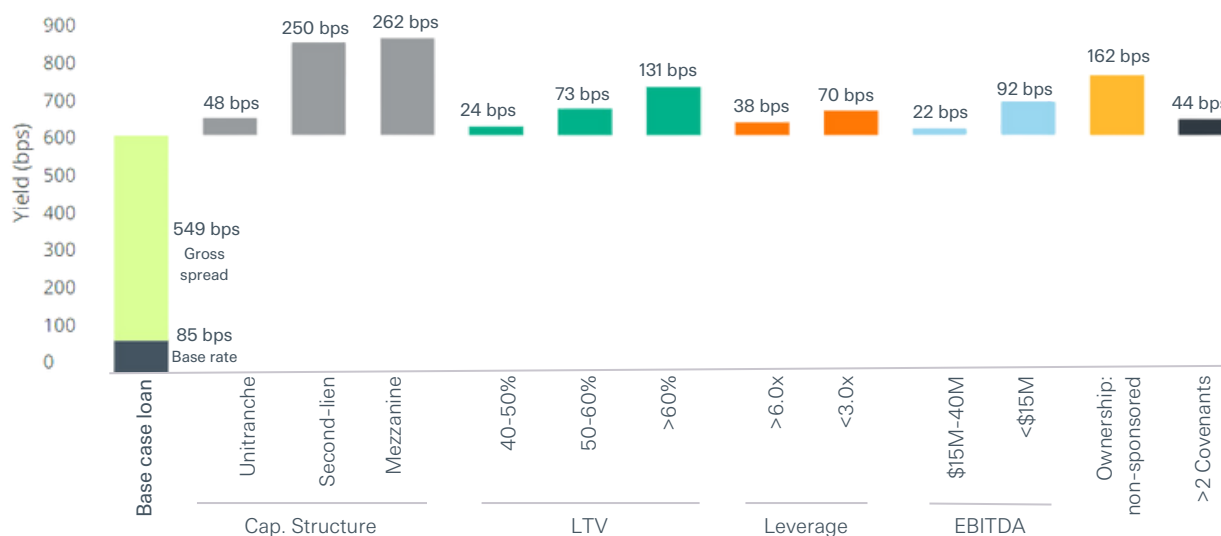
Gross Spread

The gross spread is the combination of credit and liquidity risks and a complexity premium. The credit risk is determined by the creditworthiness of the borrower and reflects the expected loss rate for the loans for which a lender will want to be compensated for. In addition, loans to middle-market companies are typically not listed on an exchange nor easily tradable. Lenders, therefore, require

a premium for this illiquidity risk. Finally, direct lending transactions are privately negotiated, non-standardized and tailored to individual situations. Thus, lenders are remunerated for this complexity with higher compensation. The relationship between gross spread and credit quality is inverse, i.e., a higher gross spread will be applied to a low-quality borrower.

Any deviation from the BCL buckets increases the yield, as investors demand greater compensation for assuming more risks. Hence, the results shown in Figure 3 can be interpreted as the additional yield that can be obtained on average when onboarding the stated factor.[1] For example, by moving from first-lien to unitranche, the investor should expect yields to increase by 48 bps on average; going to second lien results in an increase of 250 bps relative to the first lien loan, holding other factors fixed.

FIGURE 3: YIELD DECOMPOSITION



Source: StepStone Group, 30 June 2023

[1] Only coefficients reaching a significance level of at least 99% (p-value < 0.01) are displayed. The coefficients of the different components add to the BCL. For instance, we would expect a loan with a higher LTV (50-60%) and lower EBITDA (\$15m-40m) to yield 729 bps on average (i.e., 634 + 73 + 22), all else equal.

Summary of the factors used in our analysis:

Capital Structure

Subordination in the capital structure carries a higher probability of experiencing a larger loss in case of a default event (i.e., higher loss given default). In the event of default, first-lien lenders can generally drive the restructuring process and are better placed than second-lien or junior lenders to recover their initial investment, wholly or partially. Therefore, investing in unitranche, second lien, and mezzanine yields additional returns of 48 bps, 250 bps, and 262 bps, respectively, compared to a first-lien loan.

LTV

LTV follows the same logic as the capital structure. The more cushion behind the lenders, the higher the probability for a low loss given default. As LTV is inversely related to the expected recovery rates, when LTV increases, the expected recovery rate goes down. As a result, increasing LTV increases yields by 24 bps, 73 bps and 131 bps for the LTV baskets of 40–50%, 50–60% and > 60%, respectively, relative to below 40% LTV loan.

Leverage

Intuitively, higher leverage implies higher risk due to the reduced ability to service the debt. A more counterintuitive result is the premium paid by a company with a leverage level below 3.0x. A closer look at this situation shows that these borrowers tend to be smaller companies in more cyclical sectors, with weaker credit metrics implying less capacity to take on more debt. This leads to an average yield of 70 bps higher for loans with leverage below 3x and 38 bps for those with leverage above 6x relative to loans with leverage between 3.0x–4.5x. The coefficient associated with leverage between 4.5x–6.0x was 10 bps but was only significant at 95% and thus not included in the graph.

EBITDA

Companies with lower EBITDA are considered less creditworthy due to the acute business risk of such firms, driven by higher concentration or growth and

development risk. For this reason, investors would receive a premium of 22 bps and 92 bps for the EBITDA baskets of \$15m–45m and < \$15m, respectively, relative to borrowers with EBITDA > \$75m. The coefficient associated with EBITDA between \$40m–75m was 12 bps but was only significant at 90% and thus not included in the graph.

Company Ownership

Lending to companies that aren't supported by private equity firms (non-sponsored) is perceived as riskier and consequently commands a premium. Sponsors usually impose stricter corporate governance and financial reporting standards on portfolio companies. Lenders take comfort from the thorough diligence review and underwriting capabilities of private equity sponsors when assessing the viability of a business. Conversely, granting a loan to a non-sponsored company requires a higher level of diligence by lenders for which they need to be compensated. Moreover, sponsors' ability and willingness to support a business with fresh capital is generally substantially higher than in a non-sponsored transaction. The premium for non-sponsored loans is 162 bps relative to sponsored loans.

Financial Maintenance Covenants

Covenants are included in credit agreements to reduce informational asymmetries and provide an instrument of control to lenders. The positive correlation between the number of covenants and the compensation suggests that direct lenders tend to impose a higher number of covenants for borrowers they deem riskier. For this reason, loans with over two financial maintenance covenants carry a premium of 44 bps relative to loans with just one or two. That the coefficient associated with cov-lite loans was statistically insignificant suggests lenders do not consider the loans they underwrite with zero covenants to be any riskier than those with just one or two.

Conclusion

This paper provides a detailed yield breakdown of direct lending loans based on private debt-specific metrics and highlights the drivers behind the asset class's returns. We have also demonstrated how this analysis can identify true premia and potential sources of outperformance. Importantly, our research underscores the significance of accessing comprehensive, instrument-level data when operating in private markets. This level of detail allows investors to understand the asset class dynamics more fully and benchmark specific transaction returns more accurately. In doing so, they can make more informed investment decisions and better manage risk.

While this analysis provides valuable insights, it also highlights the need for ongoing research. The direct lending market is continuously developing, so our understanding of it must also evolve. This will require ongoing scrutiny of loan components, monitoring market developments, and continually refining our analysis and understanding. By doing so, investors can better navigate this asset class and increase the potential for superior returns.

We are global private markets specialists delivering tailored investment solutions, advisory services, and impactful, data-driven insights to the world's investors. Leveraging the power of our platform and our peerless intelligence across sectors, strategies, and geographies, we identify the advantages and the answers our clients need to succeed.

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