How Liquid Are Direct Lending Portfolios?

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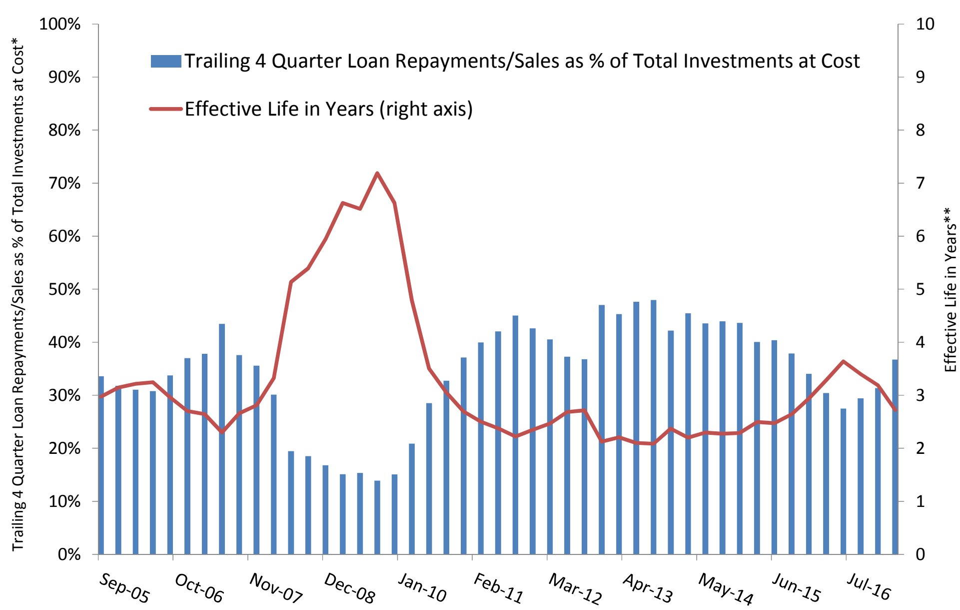
One attractive feature of U.S. middle market direct loans is an effective life that is shorter than their typical 5 year maturity. Understanding effective life is useful for measuring overall portfolio liquidity, which in turn can help allocators in setting commitment levels to direct lending portfolios, and help managers who must balance cash flows from loan assets with liability requirements of investors.

*We find that the effective life of U.S. direct loans has averaged **2.91 years**, based upon data underlying the Cliffwater Direct Lending Index[1] covering the period from September 2004 through March 2017. Importantly, we also find that effective life has varied considerably over time, from a low of 2.09 years to a high of 7.19. Unfortunately, but predictably, we find that effective life in direct lending varies inversely with general conditions of market liquidity.*

Findings

Exhibit 1 reports principal cash flow from loan maturities, prepayments, and asset sales in the Cliffwater Direct Lending Index as a percent of total investments at cost for the period from September 2005 through March 2017. Measurements reflect trailing four quarter (one year) periods. Also included in Exhibit 1 is the effective life, which is calculated by taking the reciprocal of the principal-related cash flow percentage. For example, a portfolio with 33 1/3% of loans repaid or sold every year will turn over once every 3 years.

Exhibit 1: Liquidity Measurement for U.S. Middle Market Direct Loan Assets



* Cash inflows from maturing loans, prepayments, and sales, divided by total investments at cost
** Equal to the reciprocal of first footnote

1 The Cliffwater Direct Lending Index (the "CDLI") is an index comprised of all underlying assets held by public and private Business Development Companies that satisfy certain eligibility requirements. The CDLI is asset-weighted by reported fair value. Any information presented prior to the Launch Date (September 30, 2015) of the CDLI is back-tested. Past performance is not indicative of future returns. Please see additional CDLI disclosures at the end of this report. See www.CliffwaterDirectLendingIndex for more information.

Principal-related cash flow from portfolios of direct loans average 34.4% annually for the entire 12+ year measurement period. Alternatively, direct loans can be thought of as having an average 2.9 year effective life, similar to the 3 year effective life often cited by loan managers. Combined with interest income that equaled 11.2%, compounded annually, over the same period, direct loan portfolios generated 45.6% (34.4% plus 11.2%) on average in combined annual cash flow. On their face, these are impressive metrics for investors with short term cash flow requirements or allocators wanting vintage diversification without having to maintain "dry powder".

However, our data also shows that principal-related cash flow from direct loan assets is correlated to the credit cycle. As credit conditions tighten, borrowers are either unable to refinance outstanding debt or are unable to cover the cost of principal repayment. Conversely, when credit conditions ease, borrowers are better able to refinance loans and can prepay outstanding debt, shortening the average life. Principal-related cash flow dropped more than one-half its long term average as a result of the Financial Crisis, to 13.9% of loan assets for the four quarters ending September 2009, raising the effective life to 7.2 years. More recently, principal-related cash flow dropped during the 2015-2016 energy recession, to 27.5% of loan assets and a 3.6 year effective life.

Interest income from direct loan portfolios, on the other hand, show modest gains during periods of market stress. For example, during the Financial Crisis when principal-related cash flow dropped to 13.9%, cash flow from loan income reached a 12.6% peak level for the same time period, compared to 11.2% for the entire measurement period. This is likely explained by lenders requiring higher interest payments on newly originated loans, with a larger percentage paid in cash, as opposed to payments-in-kind (PIK), to incentivize them to extend loans when credit risk increases. Together, the combined principal and income cash flow from direct loans equaled 26.8% of total loans held at cost during the Financial Crisis, compared to 45.6% combined annualized cash flow over the entire measurement period.

Conclusion

A frequently heard benefit of investing in U.S. middle market direct loans is their comparatively high cash flow from principal and income. We show that principal-related income averages approximately one-third of total assets annually but varies inversely with the periods of financial stress. A modest offset is cash flow from loan income, which increases with financial stress due to widening interest spreads. Nonetheless, overall cash flow from direct loans is time-varying and consistent with the adage that liquidity is present when you don't need it, but absent when you need it.

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Index returns do not reflect payment of any sales charges or fees a person may pay to purchase the securities underlying the CDLI or a product that is intended to track the performance of the CDLI. The imposition of these fees and charges would cause the actual and back-tested performance of these securities or products to be lower than the CDLI performance shown.

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Prospective application of the methodology used to construct the CDLI may not result in performance commensurate with any back-tested returns shown. The back-test period does not necessarily correspond to the entire available history of the CDLI. Another limitation of back-tested hypothetical information is that generally the back-tested calculation is prepared with the benefit of hindsight. Back-tested data reflect the application of the CDLI methodology and selection of the CDLI constituents in hindsight. No hypothetical record can completely account for the impact of financial risk in actual trading. For example, there are numerous factors related to the financial markets in general which cannot be, and have not been, accounted for in the preparation of the CDLI information set forth, all of which can affect actual performance.

When Cliffwater was unable to determine the nature of a BDC's investments because of limited information included in historical SEC filings, Cliffwater did not apply the portfolio composition criteria (at least 75% of total investments represented by direct loans) to the BDC. All other eligibility criteria were applied to determine whether to include the BDC in the historical CDLI composition and return. All CDLI returns and characteristics are reported with a 2.5 month lag to allow sufficient time for SEC filings.

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