Blackstone Credit

CREDIT INSIGHTS

The Case for Senior Secured Loans and CLOs

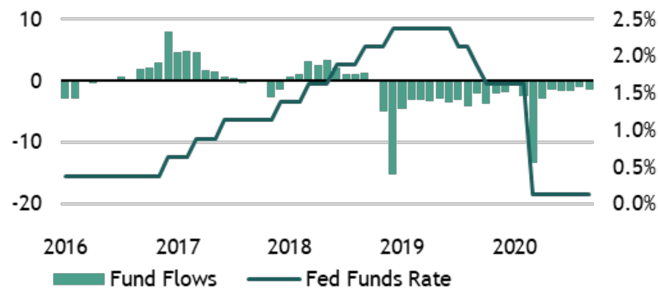
The strong recovery of the global credit markets that followed a period of dislocation induced by the outbreak of COVID-19 last spring provides another opportunity to highlight the various benefits and important characteristics of senior secured loans and Collateralized Loan Obligations ("CLOs"). Many concerns were raised before and during the COVID-19 pandemic, but loans and CLOs have again proven their resiliency and have continued to provide investors with liquidity and important structural protections. In this paper, we provide additional context and data in support of the case for senior secured loans and CLOs.

The Case for US and European Loans

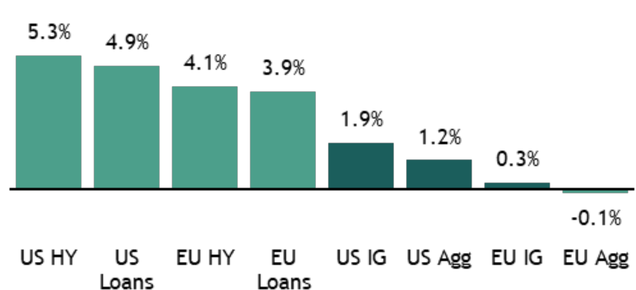
1. Senior secured loans may provide an attractive solution for income seeking investors, especially with much of traditional fixed income currently ill-suited to provide real income
2. The fundamental and technical backdrop for loans remains supportive despite the uncertain global markets
3. Loan default rates remain manageable and are declining, contrary to initial forecasts
4. Access to liquidity remains strong for loan issuers, even during periods of economic stress
5. Loan issuers have been able to lower borrowing costs and extend debt maturities in the years leading up to the most recent market selloff, contributing to manageable default rates in 2020
6. Loan principal loss rates remain low despite a decrease in recovery rates

1. Senior secured loans may provide an attractive solution for income seeking investors, especially with much of traditional fixed income currently ill-suited to provide income.[1] Given the scarcity of yield in today's low rate environment, we believe the opportunity in loans has largely been misunderstood, particularly by retail investors. One only need look at loan mutual fund flow figures for the past four years to surmise that many investors believe loans are only attractive in rising rate environments. Retail investors tend to focus on the low duration of loans, but we believe the secured nature of loans is defensive, particularly in times of economic uncertainty. We note that while retail investors have withdrawn $69 billion since year-end 2017, institutional investors have increased their allocations to loans by $289 billion during this time.[2] Loans have performed well through various interest rate and economic cycles and provide investors with attractive yield compared to traditional fixed income.

US Retail Loan Fund Flows ($ in billions)



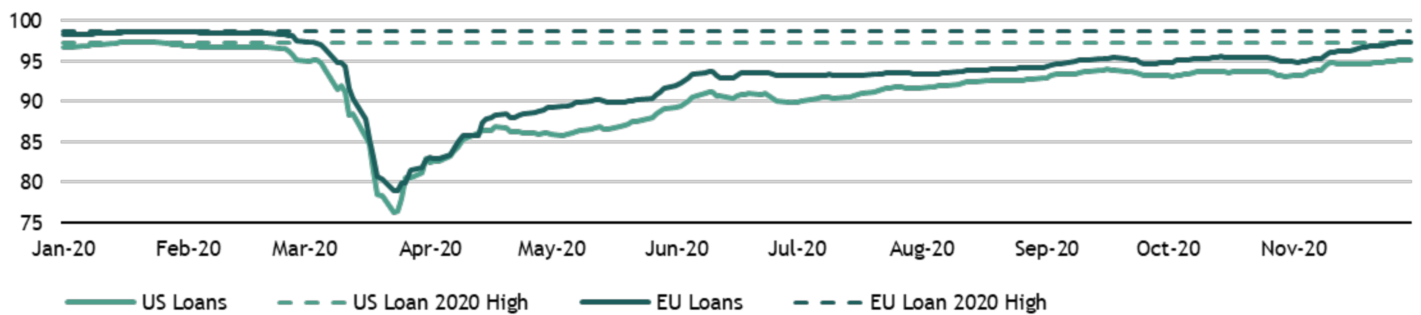
Credit Yields



2. The fundamental and technical backdrop for loans remains supportive despite the uncertain global markets. After several months of recovery since the COVID-19 market trough in March 2020, loans globally have again proven their resiliency. Second quarter earnings for loan issuers reflected expected declines in revenue and EBITDA growth, but results were generally better than expected and interest coverage levels were relatively stable. Additionally, the technical market backdrop remains supportive. By the end of November, US and European loan prices had recovered 89% and 93%, respectfully, of the losses incurred in March, bolstered by continued demand from both existing and new CLOs with October marking the busiest month year-to-date for the CLO primary market in both the US and Europe.[3,4]

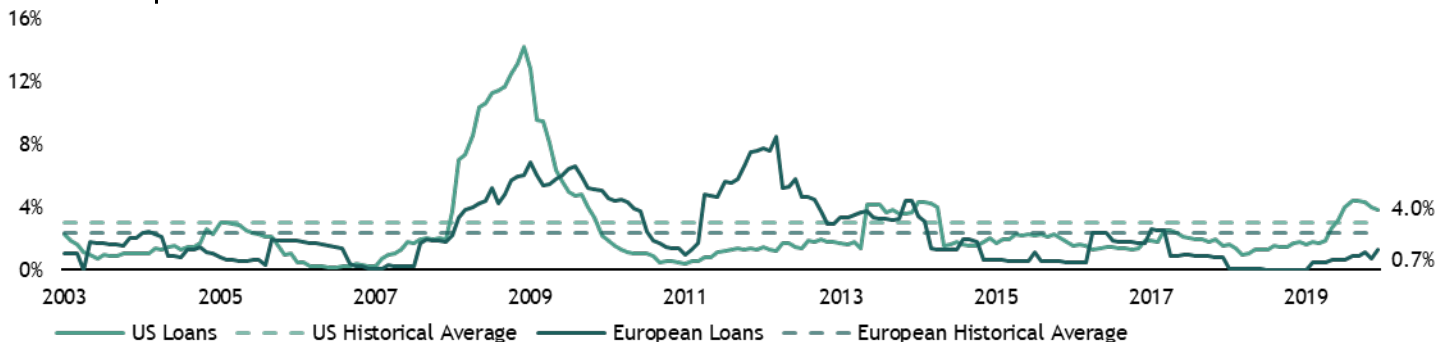
[1] US HY represented by Bloomberg Barclays High Yield Index, US Loans represented by S&P/LSTA Leveraged Loan Index, EU HY and EU Loans represented by Credit Suisse High Yield and Leveraged Loan Indices, respectively, US IG and US Agg represented by the Bloomberg Barclays Corporate Bond and Aggregate Bond Indices, respectively, EU IG and EU Agg represented by the Bloomberg Barclays European Corporate Bond and Aggregate Bond Indices, respectively, as of November 30, 2020.
[2] JP Morgan, Lipper, as of September 30, 2020.
[3] S&P/LSTA Leveraged Loan Index and S&P European Leveraged Loan index, as of November30, 2020.
[4] LCD, as of October 31, 2020.

US Loan and European Prices ($,€)



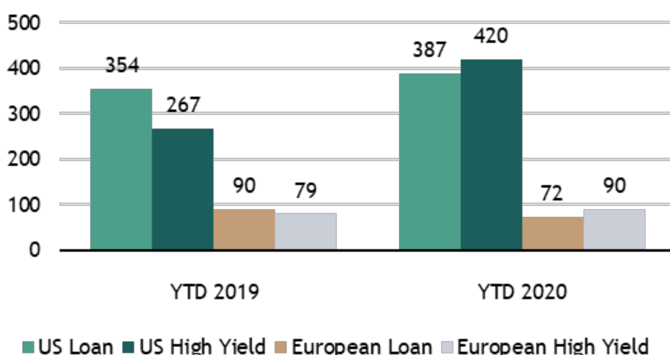
3. **Loan default rates remain manageable and are declining, contrary to initial forecasts.** After peaking at 4.4%, US loan default rates fell to 3.8% on an LTM basis by the end of November. European loan default rates peaked at the end of November but remain quite low at just 1.3%. These rates are just 0.8% above the historical average for US loans and lower than the historical average for European loans.[5] For actively managed CLO portfolios, the default rate is significantly lower at 1.6% on average with Blackstone Credit's CLO default rate of 0.5% outperforming the peer average.[6] It is also notable that US default rates at the end of November were 900bp lower than those experienced in the aftermath of the financial crisis, and 550bp lower in the case of European loans.

US and European Loan Default Rates

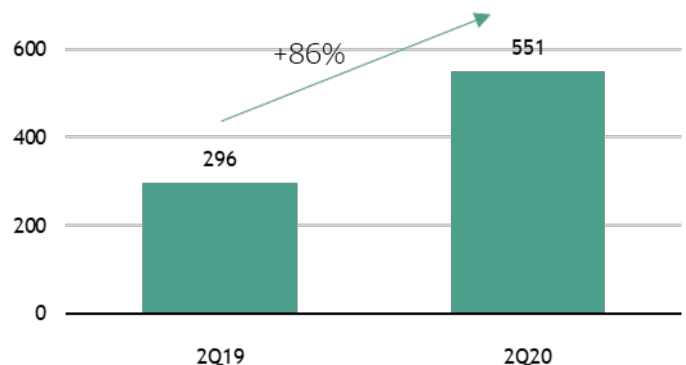


4. **Access to liquidity remains strong for loan issuers, even during periods of economic stress.** Despite the challenging environment, many companies were able to raise cash and bolster liquidity in 2020 and total issuance in the below investment grade corporate market increased by 23% compared to the same period in 2019.[7] Although this additional debt incurrence is, in part, made possible by looser credit agreement provisions, it has allowed companies to extend liquidity and provide a longer runway on which to navigate the market downtown. Across US borrowers held in Blackstone Credit liquid credit portfolios, cash balances were up 86% year over year according to second quarter earnings reports.[8] This year's lower-than-feared default rates can partially be attributed to the ability of loan and high yield issuers to access the capital markets.

Below Investment Grade Issuance ($ in billions)



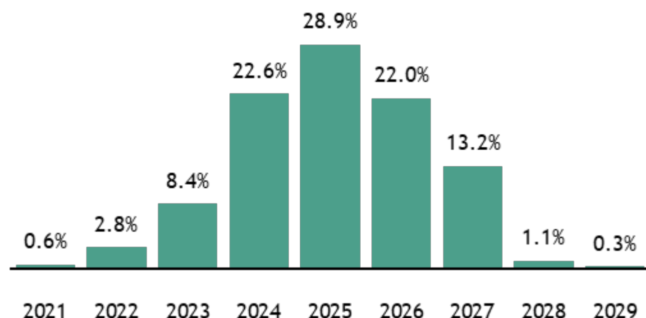
Blackstone Credit US Issuer Avg. Cash Balances ($ in millions)



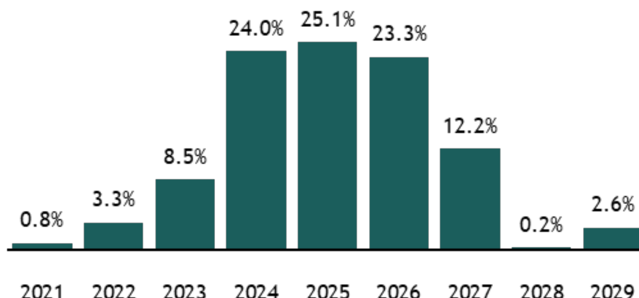
[5] JP Morgan Default Monitor, December 1, 2020; Credit Suisse Default Report, December 2, 2020.
[6] JP Morgan CLO Research, as of October 31, 2020. Based on 106 CLO managers.
[7] JP Morgan High Yield Bond and Leveraged Loan Market Monitor, December 1, 2020; LCD, as of November 30, 2020.
[8] Blackstone Credit, Axiom, as of June 30, 2020. Represents 672 US borrowers held in portfolios within Blackstone Credit's Liquid Credit Strategies ("LCS") unit.

5. **Loan issuers have been able to lower borrowing costs and extend debt maturities in the years leading up to the most recent market selloff, contributing to manageable default rates in 2020.** Following heavy issuance levels in 2017 and 2018, market observers claimed that the US loan market was overheated as its growth eclipsed the size of the historically larger $1.2 trillion high yield bond market. Gross US loan issuance totaled $974 billion in 2017 and $704 billion in 2018; however, most was attributed to repricings and refinancings (74% in 2017 and 57% in 2018) rather than new net issuance. As a result, only 0.6% of US loans and 0.8% of European loans mature in 2021. For this reason, we expect issuer liquidity and defaults to remain manageable in the near term.[9]

US Loan Maturity Wall (% outstanding)

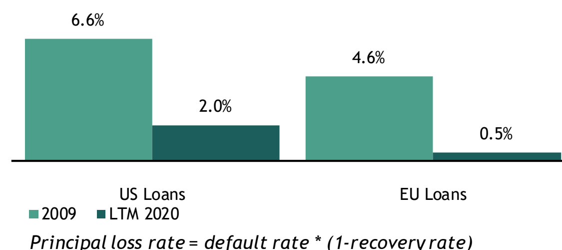


European Loan Maturity Wall (% outstanding)



6. **Loan principal loss rates remain low despite a decrease in recovery rates.** There has been focus for some time now on the potential for lower recovery rates resulting from an increase in covenant lite loans. With 83% of all US loans outstanding categorized as covenant lite, we acknowledge that certain lender protections have become looser in loan credit agreements broadly and that the flexibility afforded by these documents has resulted in an erosion of recovery rates in certain transactions. However, the lack of maintenance covenants has also resulted in fewer defaults as these covenants by their nature can trigger default events that otherwise might be avoided if the business can be turned around.

US and EU Loan Principal Loss Rates



*Principal loss rate = default rate * (1-recovery rate)*

As a result, principal loss rates for loans during the most recent downturn have been very low relative to 2009 in both the US and Europe. For the LTM period ending November 2020, US and European loans experienced principal loss rates of 2.0% and 0.5%, respectively, compared to 6.6% and 4.6% in 2009 when only 17% of US loans were covenant lite (5% in Europe).[10] This is inclusive of the retail sector of the US loan market which experienced elevated defaults in 2020 compared to most other sectors and lower average recovery rates of 38% compared to the broader market average recovery rate of 48%.[11]

The Case for US and European CLOs

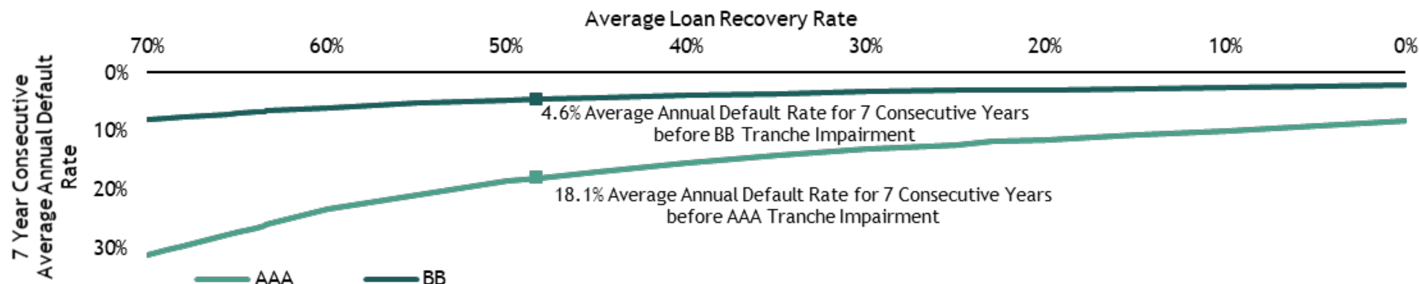
1. CLOs have structural subordination that protects senior CLO debt holders
2. Amid the recent market volatility, CLO managers continued to actively manage underlying portfolios despite restrictions related to ratings-based portfolio tests and the amount of defaulted loans in their portfolios
3. Where collateral quality could not be improved, various CLO restrictions limited the trading activity of portfolio managers to "maintain or improve" standards
4. CLOs are designed with "self-healing" mechanisms which activate as portfolio quality deteriorates
5. The subordination of the CLO structure has allowed CLO equity investors to temporarily absorb unrealized losses until portfolio quality recovered
6. An active secondary market exists for CLOs that has been fueled by increased transparency into the underlying portfolios
7. CLOs have diverse collateral unlike collateralizations of residential, commercial, and aircraft mortgages, which all have the potential to behave similarly

1. **CLOs have structural subordination that protects senior CLO debt holders.** As a result, the underlying loans must experience a draconian rate of loss before impacting senior CLO debt tranches. The below graph shows the average annual default and recovery rates that the underlying loans in a CLO portfolio must experience for the life of the CLO (seven years in a row) in order for certain tranches to experience

[9] S&P/LSTA Leveraged Loan Index, S&P European Leveraged Loan Index, as of November 30, 2020.
[10] S&P/LSTA Leveraged Loan Index, S&P European Leveraged Loan Index, as of December 31, 2009.
[11] JP Morgan High Yield Bond and Leveraged Loan Default Monitor, December 1, 2020; Credit Suisse Default Report, December 2, 2020.

impairment. Assuming the current LTM US loan recovery rate of 48%, CLOs would have to incur an annual default rate of 18.1% each year for seven consecutive years before the typical most senior CLO AAA-rated tranche would be impaired and 4.6% before the typical most junior CLO BB-rated tranche would be impaired, assuming no other losses.[12] This scenario is highly unlikely to play out and clearly did not happen during 2020 nor during the financial crisis, two tangible test cases of the past decade.

US CLO Impairment Frontier

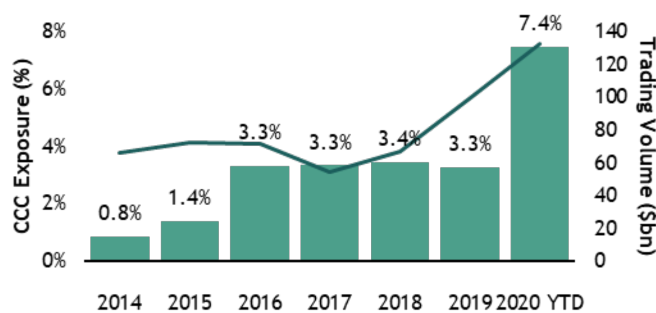


In Europe, assuming the current LTM loan recovery rate of 64%, European CLOs would have to incur an average annual default rate of 36.1% over the life of the CLO before the typical CLO AAA-rated tranche would be impaired and 10.9% before the typical CLO BB-rated tranche would be impaired, assuming no other losses. With Blackstone Credit LTM recovery rates of 69% for US loans and 67% for European loans, the cumulative default rate would have to increase even further before these tranches of Blackstone Credit CLOs incurred a loss.

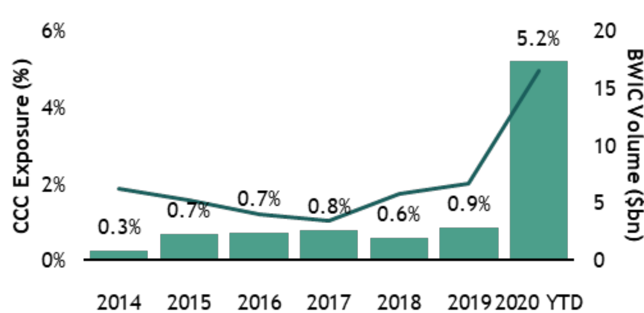
2. **Amid the recent market volatility, CLO managers continued to actively manage underlying portfolios despite restrictions related to ratings-based portfolio tests and the amount of defaulted loans in their portfolios.** As illustrated by the chart below, CCC balances in CLOs in both the US and Europe grew alongside an overall increase in secondary loan trading volumes.[13] Contrary to certain accounts this year, CLOs are never forced sellers of CCC-rated assets.

Average Annual CLO CCC Exposure and US Secondary Trading, European BWIC Volume

US CLOs



European CLOs



3. **Where collateral quality could not be improved, various CLO restrictions limited the trading activity of portfolio managers to "maintain or improve" standards.** CLO indentures contain concentration limits and test requirements to ensure adequate credit quality and diversification of the underlying CLO portfolio. Common CLO concentration limits are vast and include, but are not limited to, maximum percentages of second lien loans, CCC-rated assets, fixed rate securities, single issuer concentration limits, industry concentration limits, and other restrictions intended to ensure high quality, diversified portfolios.

4. **CLOs are designed with "self-healing" mechanisms which activate as portfolio quality deteriorates.** On quarterly CLO payment dates, the formulaic priority of noteholder interest payments, overseen by a third-party Trustee, will divert cash flows as necessary away from equity investors and junior noteholders to either fortify the CLO's assets or paydown senior debt. This protects senior noteholders in the limited instances when necessary. As collateral quality has improved, diversion rates have decreased and at no time in 2020 did they approach 2009 levels.[14]

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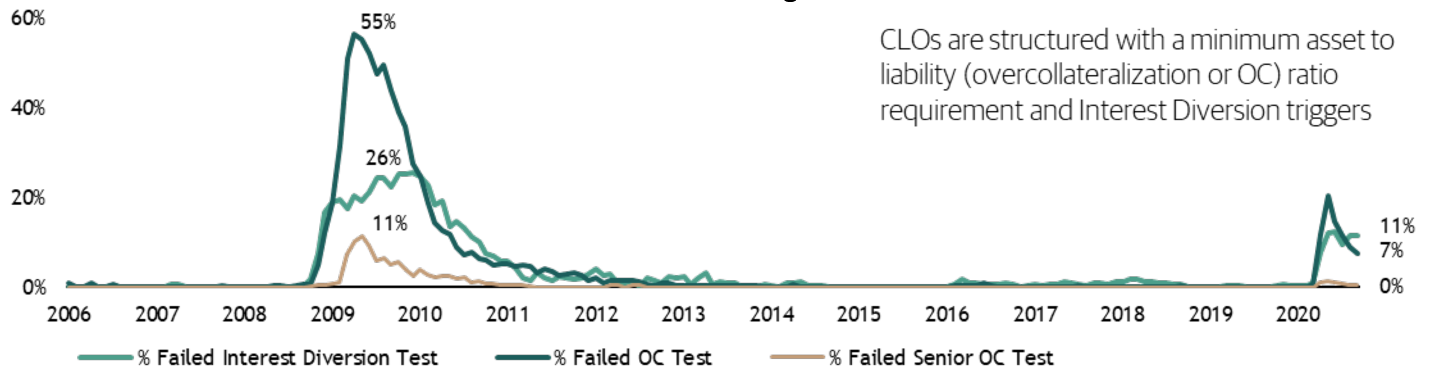
[12] Reflects Blackstone Credit's views and beliefs as of October 2020. Source: US: J.P. Morgan as of October 31, 2020 for average recovery rate and annual loan default rate; Europe: Credit Suisse as of October 31, 2020 for average recovery rate and annual loan default rate. CLO impairment frontiers generated from Intex model and include key assumptions as follows: Interest rates based on current Intex curve, annual prepayment rate of 20%, Recovery lag = 12 months, CLO redeemed at AAA payoff date in standard CLO run, reinvestment price = 99.75, reinvestment rate = 3 month Libor + 325bps, no reinvestment post Reinvestment Period.
[13] Intex, Wells Fargo Research, as of August 31, 2020.
[14] Wells Fargo Research, as of September 30, 2020.

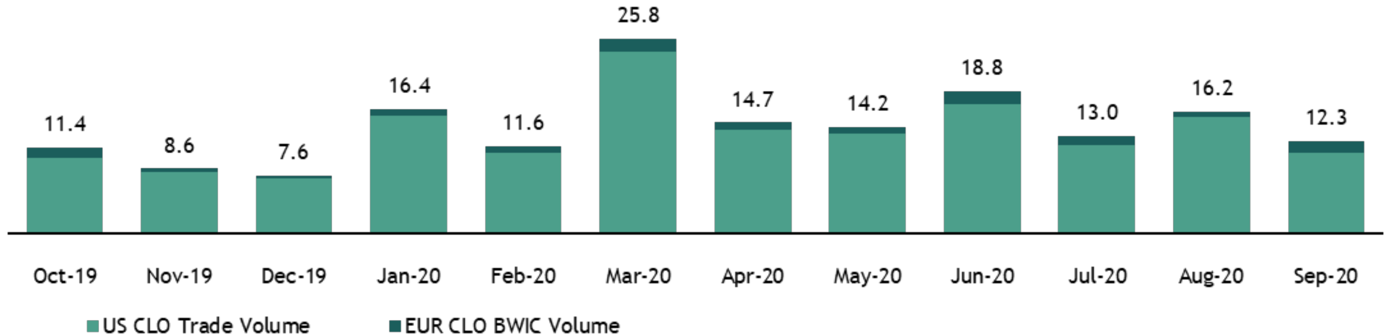
US CLO OC and Interest Diversion Test Failure Rates (% of Outstanding US CLOs)



5. **The subordination of the CLO structure has allowed CLO equity investors to temporarily absorb unrealized losses until portfolio quality recovered.** Once CCC balances, default volumes, and rating downgrades eased, CLO collateral quality improved and most CLO equity distributions to investors have now resumed. About 95% of CLOs made a quarterly equity distribution in October, up from 89% in July. As a result, despite speculation on the negative impact this tumultuous year would have on CLO equity returns, US CLO equity delivered an 11.3% annual cashflow return, the 10th consecutive year of double-digit cashflow returns. In comparison, only about 6% of the US loan and high yield indices yield more than 10% (largely distressed issuers), and negative-yielding debt globally is near an all-time high.[15]

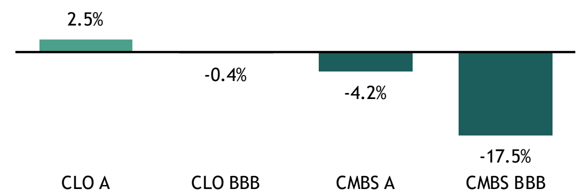
6. **An active secondary market exists for CLOs that has been fueled by increased transparency into the underlying portfolios.** Trading liquidity remained strong throughout the COVID-19 related market selloff; from March through September 2020 $115 billion of US and European CLO securities were traded or offered for sale.[16] Market research tools such as Intex and Kanerai provide transparency into the underlying CLO portfolio, allowing market participants to appropriately price risk. Deep market liquidity is a signal that the CLO market is functioning properly and allows CLO investors to enter and exit positions based on underlying credit views.

CLO Trade and BWIC Volumes ($ in billions)



7. **CLOs have diverse collateral unlike collateralizations of residential, commercial, and aircraft mortgages, which all have the potential to behave similarly.** US CLOs are typically invested in 200-300 different corporate borrowers (100-200 in European CLOs) across many industries. Other structured products, such as CMBS, EETC, and RMBS, have portfolios that are highly corrolated to a single industry, and sometimes to a single issuer in the case of certain CMBS.

CLO and CMBS YTD Performance



The COVID-19 pandemic, similar to prior cycles, has shown that industries and companies can perform differently during a recession. In fact, the global markets are experiecing significant dispersion of performance by sector. Industries like travel and leisure have been severely impaired, while others such as pet retailers and outdoor products have flourished.

[15] JP Morgan CLO Equity Maverick, October 30, 2020; includes 950 CLO equity (or 80% of the universe with a final fourth quarterly payment in October.
[16] TRACE for US trade volumes and Citi for EUR BWIC volumes, as of September 30, 2020. For illustrative purposes only. BWICs may not necessarily result in a trade and some TRACE volume may include certain trades resulting from a BWIC. Note that EUR CLO trading volume is not available through TRACE.

Additionally, as actively and professionally managed collateral portfolios, CLOs are able to trade in and out of sectors and companies depending on relative value and expected performance, unlike other structured portfolios containing securitizations of originated product that are neither professionally selected nor managed. Accordingly, CLOs have performed much better than CMBS, for example, on a total return basis this year.[17] This should be unsurprising given that CLOs also held up well in the aftermath of the financial crisis when the average five-year loss rate from 2008-2013 was just 1.4%, compared to 38% for the aggregate structured finance product universe.[18]

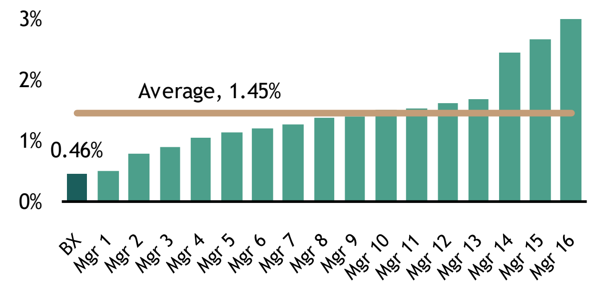
Blackstone Credit's Competitive Advantage

Immediately following the March downturn, investors stepped back from the markets indiscriminately, but Blackstone Credit was more selective and actively traded our portfolios. The Blackstone Credit team performed a thorough, bottoms-up analysis on expected impacts of COVID-19 on our loan issuer universe. Blackstone Credit's global team of 32 liquid credit analysts utilized the deep resources and information available within Blackstone to update near-term views on probability of default and/or downgrade to CCC, along with timing for each borrower.

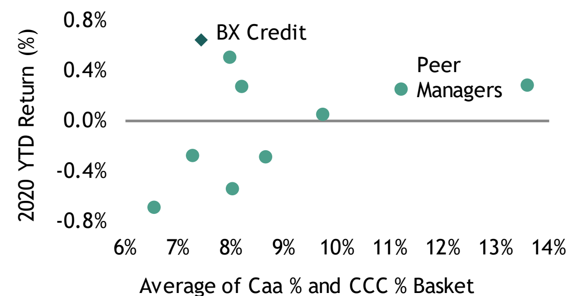
This active and nimble portfolio management approach has resulted in Blackstone Credit's US and European CLO portfolios being primarily invested in resilient companies with minimal exposure to social distancing related issues. This is evident in lower default rates within our CLO portfolios and fewer downgrades than peers. Blackstone Credit CLO portfolios have experienced lower default rates of 0.46% compared to an average of 1.45% for peer managers.[19]

Additionally, Blackstone Credit is faring particularly well compared to peers with respect to downgraded CLO tranches. In the US, about 9% of Blackstone Credit CLO tranches were put on watch for downgrade since March versus a market average of 18%. All watch activity on Blackstone Credit's US CLOs has been resolved, and just 1.4% of all tranches were downgraded compared to 9.6% for the market. In Europe, 11% of Blackstone Credit CLO tranches were put on watch for downgrade versus a market average of 16%. Just 1.4% of Blackstone Credit's European CLO tranches were downgraded compared to 2.5% for the broader European CLO market; however, 7% of Blackstone Credit European CLO tranches remain on watch versus 9% for the market.[20]

Average Default Rates in CLO Portfolios



YTD Portfolio Returns vs. Average Caa/CCC Basket Size



As the chart above shows, Blackstone Credit CLOs have achieved stronger year-to-date portfolio returns with less risk relative to peer CLOs as measured by rating of the underlying assets.[21] We were also able to successfully leverage the credit analysis performed by the liquid credit research team when evaluating investments in third party CLOs producing strong relative performance in those portfolios.

[17] JP Morgan CLOIE for CLOs, Bloomberg Barclays CMBS Index, as of September 30, 2020.
[18] Moody's Investor Services, The Performance of Moody's Structured Finance Ratings. The five-year statistics are for the cohort formed on January 1, 2008. Moody's defines losses for Structured Finance securities as including impairments (any security downgraded to Ca/C), which signals a near certain expectation of a significant level of future losses. The statistics exclude rating changes due to the introduction of Moody's global methodology for rating structured finance Interest-Only ("IO") securities announced on February 22, 2012. Data for the five-year period ending July 2016 are similar in terms of the relative performance of these asset categories and available upon request.
[19] JP Morgan research, as of October 7, 2020. Includes 2.0 U.S. CLOs that priced in April 2020 or prior, excluding static deals and middle-market deals, with at least twelve months of data. Includes CLO managers with at least 15 deals included in JP Morgan's analysis.
[20] Kanerai and Barclays, as of November 16, 2020. Fitch actions from Watch Neg to Outlook Neg is not regarded as action in this analysis.
[21] Blackstone Credit, Intex, Markit for returns; Wells Fargo for Caa/CCC. YTD returns as of September 12, 2020. Largest ten managers are based on deal balance used to calculate returns; sample set includes three additional CLO managers. Returns universe includes U.S. reinvesting CLOs, excluding middle market CLOs and excluding CLOs with CCC limits >10% and/or bond limits >7.5%. Caa/CCC data includes U.S. reinvesting CLOs priced in February 2020 or earlier.

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