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Collateralized loan obligations in the age of COVID-19

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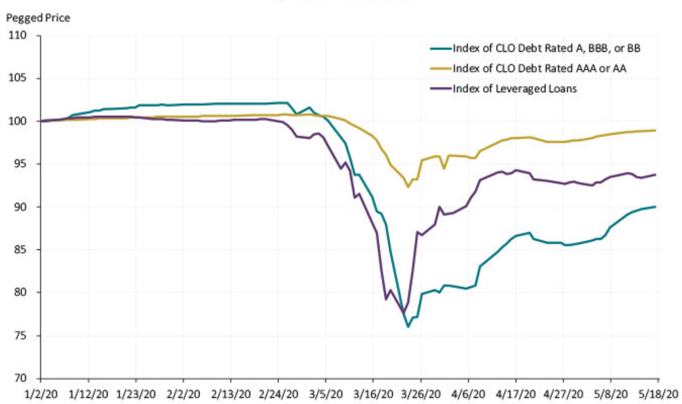
INTRODUCTION

Since the financial crisis of 2008, the amount of corporate debt outstanding in the United States has experienced a marked increase, driven by ample availability of credit and investors' growing appetite for holding debt.

Collateralized Loan Obligations (CLOs) facilitate growth in the corporate debt market by acting as some of the biggest buyers of leveraged loans. These leveraged loans are loans to mid-size and large companies that have significant amounts of debt outstanding and are rated below investment grade.

CLOs acquire these loans and hold them as collateral against AAA and other highly rated securities issued to investors.

HISTORICAL PRICES OF U.S. LEVERAGED LOAN AND CLO DEBT INDICES
1/2/20 – 5/18/20



Source: S&P/LSTA; Palmer Square Capital Management
Note: All indices are pegged at 100 on 1/2/20. The CLO debt indices are the Palmer Square CLO Debt Indices, which are rules-based observable pricing and total return indices for CLO debt for sale in the United States. The leveraged loan index is the S&P/LSTA U.S. Leveraged Loan 100 Index, which measures the performance of 100 U.S. dollar denominated large syndicated loan facilities meeting specific inclusion criteria.

While CLOs emerged relatively unscathed from the 2008 financial crisis that was largely rooted in the housing sector, the broader economic downturn caused by the COVID-19 pandemic crisis may end up impacting more firms concurrently.

Recent market movements and rating agency actions suggest that, as a result of their exposure to highly indebted companies, today's CLOs are potentially vulnerable to the systemic economic shock caused by the COVID-19 global pandemic.

In February and March 2020, market prices of leveraged loans declined significantly. While these prices have seen a substantial recovery since, a number of rating actions have been announced.

Some market participants are expressing concern that leveraged loans may experience increased defaults that lead to CLO losses in the future, especially if the current COVID-19 pandemic crisis leads to a prolonged economic recession.

Since these loans serve as the underlying collateral for CLOs, the prices of CLO tranches have also been similarly affected.

As of the writing of this article, prices of CLO tranches, and particularly those of lower-rated tranches, are below their pre-COVID-19 levels, and issuance of new CLOs has effectively come to a halt.

The CLO market will be affected by how the present economic troubles evolve.

The rating agencies have announced multiple rating actions: Moody's recently announced that it may downgrade ratings on 976 CLO tranches (affecting $22 billion in debt) and S&P put 155 CLO tranches on review for downgrades, including not only junior tranches but also a number of investment-grade tranches.

Depending on the ultimate duration and severity of the recession caused by the COVID-19 pandemic, a more significant increase in the credit risk and additional adverse outcomes for CLO securities are possible.

Indeed, as a number of interest payment deadlines approach in the coming months, the CLO market will be affected by how the present economic troubles evolve and whether substantial defaults on portfolio loans occur.

This article explains the fundamental economics of CLOs, the role of credit ratings, the evolution of the market over time, and why and how CLOs could be vulnerable to the economic downturn caused by the crisis.

CLO ECONOMICS

CLOs are investment vehicles legally structured as trusts. The trusts issue securities to investors to raise capital, and use the proceeds to acquire the loan assets that serve as collateral. Most of the assets of CLOs are leveraged loans.[1]

These leveraged loans are typically themselves collateralized by assets of the underlying corporate entities, can be prepaid by the borrower, and pay a floating rate (i.e., a spread over an interest rate benchmark, usually LIBOR).

Most CLOs are actively managed by an investment manager. The CLO manager — often a subsidiary of a large asset management firm — is responsible for selecting the collateral, subject to any restrictions imposed by investors.

The initial acquisition of loans begins prior to the closing date of the CLO, during a so-called warehousing phase, typically financed by a line of credit extended by an investment bank that structures the CLO (i.e., the "arranger"). This phase continues for several months after the closing of the CLO, known as the "ramp-up" period.

> A typical actively managed CLO holds hundreds of loans across a number of industries.

During the first four to six years of the life of the CLO (i.e., the "reinvestment period"), the CLO manager can buy and sell the underlying loans to optimize the mix of assets, and reinvests the proceeds from collected principal repayments in newly acquired loans.

A typical actively managed CLO holds hundreds of loans across a number of industries. These loans typically have a weighted average life of six to ten years.

The CLO trust issues a number of different notes (also known as tranches) to finance the loan assets. These notes typically pay a floating interest rate just like the loans, carrying a spread over an interest rate benchmark such as LIBOR.

The spread decreases with the relative seniority of a note within the CLO capital structure. For example, the AAA note may carry a spread exceeding 100 basis points (bps) over LIBOR, while BBB or BB notes can have spreads between approximately 300 bps and 600 bps.

In addition to the interest-bearing notes, the most junior claim on the CLO's assets is held by the equity holders, who typically contribute approximately 10 percent of the total financing.

The most common CLOs are so-called "arbitrage" CLOs. They are structured with the expectation that equity holders can earn a rate of return from the collateral loans, after expenses, in excess of what the noteholders receive on their notes. Target excess returns range from 10 percent to 15 percent per annum.

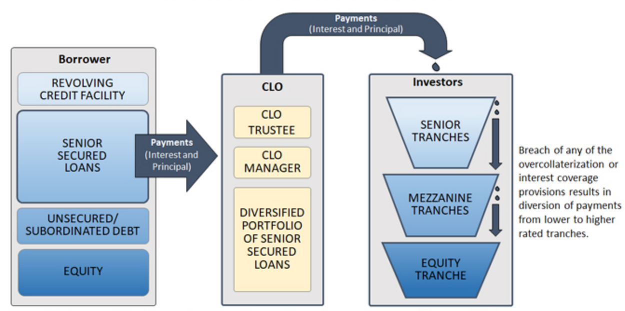
The actual realized return depends on the yield, performance, and prepayment of the loan assets chosen by the CLO manager. CLO managers typically invest in the equity tranche, together with hedge funds, structured credit funds, and other asset managers.

Equity holders have certain rights that can enhance their investment return. After an initial non-call period of approximately two years, they can refinance or call back the CLO. In a refinancing, some or all of the existing noteholders are given the choice of either agreeing to a lower interest rate or being paid back their investment in full to be replaced by new investors.

Refinancings typically occur when credit spreads have decreased such that the CLO can obtain funding at lower rates than those that prevailed when it was originally issued. A call-back involves the equity holder paying off all outstanding notes at face value and selling the loans held by the CLO.

Call-backs typically occur when the market value of the underlying loans increases such that equity holders can make a profit from immediate liquidation that exceeds the expected profit from staying invested in the CLO structure.

TYPICAL CLO CASH FLOW STRUCTURE



Note: While the vast majority of leveraged loans are senior secured loans, there are other types such as second-lien loans.

Like other structured products such as corporate Collateralized Debt Obligations (CDOs), CLOs allow for the creation of investment-grade securities from a collection of sub-investment-grade loans through a securitization process that involves pooling, tranching, and monitoring of the structure's credit risk.

Pooling entails selecting loans with cash flows that are expected to be relatively uncorrelated, so that only a small fraction of the loans would be expected to default in any given period of time.

Tranching means creating a waterfall priority structure for the claims on such loan cash flows, so that proceeds from the loans are first used to pay the noteholders holding more senior notes, and can only be used to pay junior claimants and equity holders if there are excess funds left over, among other restrictions.

The trustee, on behalf of the CLO investors, monitors the evolution of credit risk in the structure throughout its life.

Interest coverage and over-collateralization provisions, which are commonly used credit enhancement features in structured products, require that the income generated from the loans and the value of the loans are both sufficiently greater than the interest due on, and the notional value of, the CLO's liabilities (the notes held by investors), respectively.[2]

A breach of these provisions as a result of the default of the underlying loans can trigger the diversion of cash flows from more junior claims and/or the partial redemption of the notes in their order of seniority to ensure that the senior tranches are paid in full or as close to in full as possible.

Moreover, if the ratio of the principal value of the loans to liabilities corresponding to the most senior tranche falls below a certain threshold, the CLO manager may be required to sell the underlying collateral while its value is still high enough to cover the principal value of the most senior tranche.

> It remains to be seen how today's CLOs will perform over the coming months.

More generally, because the redemption of the notes' principal follows the waterfall priority of the claims, the holders of the senior tranches typically only incur losses if the principal of all the more junior notes and of the equity has been entirely exhausted.

These various protective features allow for the creation of AAA-rated and other investment-grade securities, which are desired by investors such as banks and insurance companies, despite the underlying loan collateral having a lower rating.

In fact, in many CLOs, the investment-grade tranches make up more than 80 percent of the total capital structure of the CLO. This is possible because corporate default rates have historically been sufficiently low and relatively uncorrelated.

However, these protective provisions could be insufficient if there is an unexpected and widespread increase in corporate defaults. In fact, the protective features can in some circumstances exacerbate losses if they force the CLO manager to rapidly sell the underlying loans in an illiquid or distressed market.

POST-FINANCIAL CRISIS EVOLUTION

CLOs issued prior to the financial crisis have performed well despite an increase in corporate defaults between 2007 and 2009, with no losses registered on any AAA-rated tranche, and fewer than 3 percent of other (non-AAA) investment-grade tranches experiencing losses.

The CLO new issuance market had grown significantly since its low point during the financial crisis until recently, when it declined as a result of the COVID-19 pandemic. This growth mirrored the increase in leveraged loans outstanding (the supply of assets held by CLOs), which in turn was driven by increased recapitalizations, acquisitions, and leveraged buyouts (LBOs).

Market participants attribute the increase in demand for CLO notes since the financial crisis to their attractive risk-return profiles, as reflected in the favorable interest rate spreads over similarly rated securities and few losses on the senior notes historically.

Part of the reason for the favorable loss experience has been the strong performance of the underlying leveraged loans. After reaching approximately 11 percent in 2009, default rates of leveraged loans ranged from 1 percent to 2 percent in 2019, below the historical average of approximately 3 percent.

The protective credit enhancement features of CLOs already discussed (pooling, tranching, and coverage tests) further reduce the risk of loss for the senior claimants.

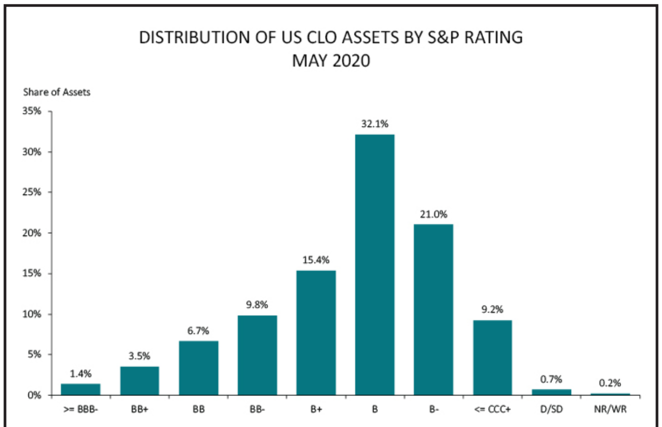
Nevertheless, some market participants have expressed concerns about the deterioration in the credit quality of leveraged loans issued during the past several years.

Most of this concern stems from the increase in the issuance of so-called cov-lite loans, which currently account for approximately 70 percent of the loans held by CLOs. Cov-lite loans refer to those loans with less restrictive covenants, which are considered to have a higher risk of experiencing losses.

In addition to the increased prevalence of cov-lite loans, some market participants are concerned that the corporate acquisitions financed with leveraged loans had themselves become riskier in the years leading up to the COVID-19-induced market freeze.

For example, transaction multiples in LBOs had been increasing since 2010, which means buyers were paying higher acquisition prices given the target company's earnings power.

Furthermore, buyers have increasingly financed these transactions with a high level of debt, and thus the companies issuing the loans became more highly leveraged than they have been in the past.



Source: *Refinitiv LPC*
Note: Excludes assets wtih private or unavailable S&P ratings. The '<= CCC+' category does not include non-performing assets rated 'D' or 'SD'.

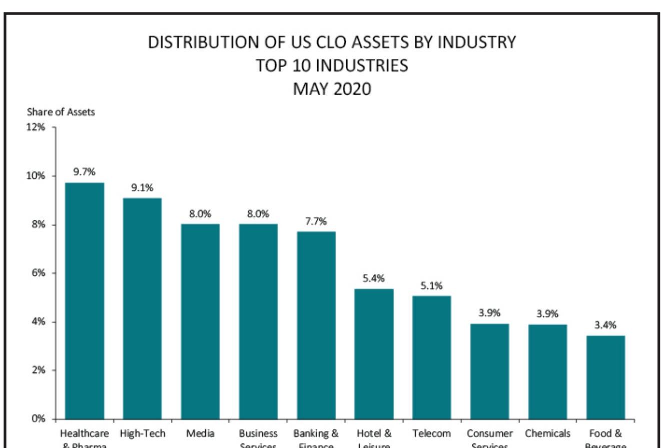
Consistent with this known trend, there has been an increased proportion of Brated loans in CLO portfolios, from approximately 7 percent in 2013 to approximately 21 percent today. These below-investment-grade loans, which are one notch above the CCC rating, can be particularly susceptible to credit downgrades in adverse economic conditions.

If they indeed get downgraded, the CLOs may breach provisions in their indentures that limit the amount of CCC-rated loans held and set a minimum average rating of the portfolio. In fact, a number of CLOs are already in breach of the typical provision that restricts holdings of CCC or lower rated bonds to no more than 7.5 percent of assets.[3]

In addition to the underlying assets becoming individually riskier, concerns have arisen regarding a potential increase in correlations between assets, which can lead to larger than expected collateral losses.

CLO assets are generally well diversified across industries, which would typically limit the portfolio's vulnerability to numerous defaults occurring at the same time.

However, as concerns emerge about the broader impact of the drop in production and output, consumer spending,



Source: *Refinitiv LPC*
Note: Assets are classified using Moody's Industry Categories. The ten industries with the largest share of total assets are displayed.

and an unprecedented increase in unemployment due to COVID-19, many if not most industries will likely be negatively impacted at least to some extent. Reflecting this concern, a significant share of the loans currently held by CLOs have a negative rating outlook.

WHAT LIES AHEAD?

Despite CLOs' perceived robustness and strong track record, market participants see economic risks due to COVID-19. This has led some to draw parallels between CLOs now and CDOs in the financial crisis.

These potential parallels include the relative complexity of the structures, significant holdings by financial institutions, rapid growth, and increase in credit risk. On the other hand, others have highlighted differences in favor of CLOs such as less reliance on re-securitization structures (e.g., CDOs that have asset-backed securities or other CDOs as collateral) and a higher level of collateralization.

It remains to be seen how today's CLOs will perform over the coming months as interest payments come due and the number of corporate defaults and bankruptcies likely increases.

In turn, tranches may be exposed to credit rating downgrades if the default risk of the underlying collateral increases and rating agencies adjust their assumptions to account for increased correlation across loans.

In addition, in the intermediate term, CLO managers and investors will have to contend with issues arising from the discontinuation of LIBOR, which is the most common reference rate for both leveraged loans and CLO notes.

LIBOR is expected to be discontinued by the end of 2021. However, the contractual terms governing the replacement of the reference rate for leveraged loans and for the notes issued by the CLO can be different, giving rise to the possibility that there will be a mismatch in the rate earned by a CLO (from the leveraged loans) and the rate paid on its liabilities (the notes) post-2021.

Furthermore, for many leveraged loans, the change of the underlying reference rate requires the agreement of all holders of the loan, which can introduce coordination challenges given the large number of investors holding each leveraged loan.

These issues surrounding LIBOR transition could have further implications for the credit risk and credit ratings of the CLO notes.

The views expressed in this article are solely those of the authors, who are responsible for the content, and do not necessarily represent the views of Cornerstone Research.

Notes

[1] Typically, most CLO assets are leveraged loans extended to large companies, also called broadly syndicated loans. There are also CLOs focused on middle-market loans, which are loans to midsize companies, usually with less than $500 million in revenues or EBIDTA. Most of these middle-market CLOs are not actively managed and have longer maturities.

[2] Typically, there are many additional provisions in the CLO indenture that can limit its overall credit risk, such as requirements that no one firm or industry account for more than a certain percentage of the collateral, and requirements related to the percentage of total assets that can be below certain credit ratings, among many others.

[3] The breach of this provision typically requires the CLO to account for the CCC loans exceeding the 7.5 percent limit at their market value rather than book value, potentially triggering over-collateralization provisions. All these features are generally described in the CLO indenture, which is available to CLO investors.

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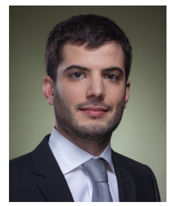
ABOUT THE AUTHORS





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