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Relative Value Considerations:
Regulatory Capital Relief Junior Tranches vs Double-B Rated CLO Tranches

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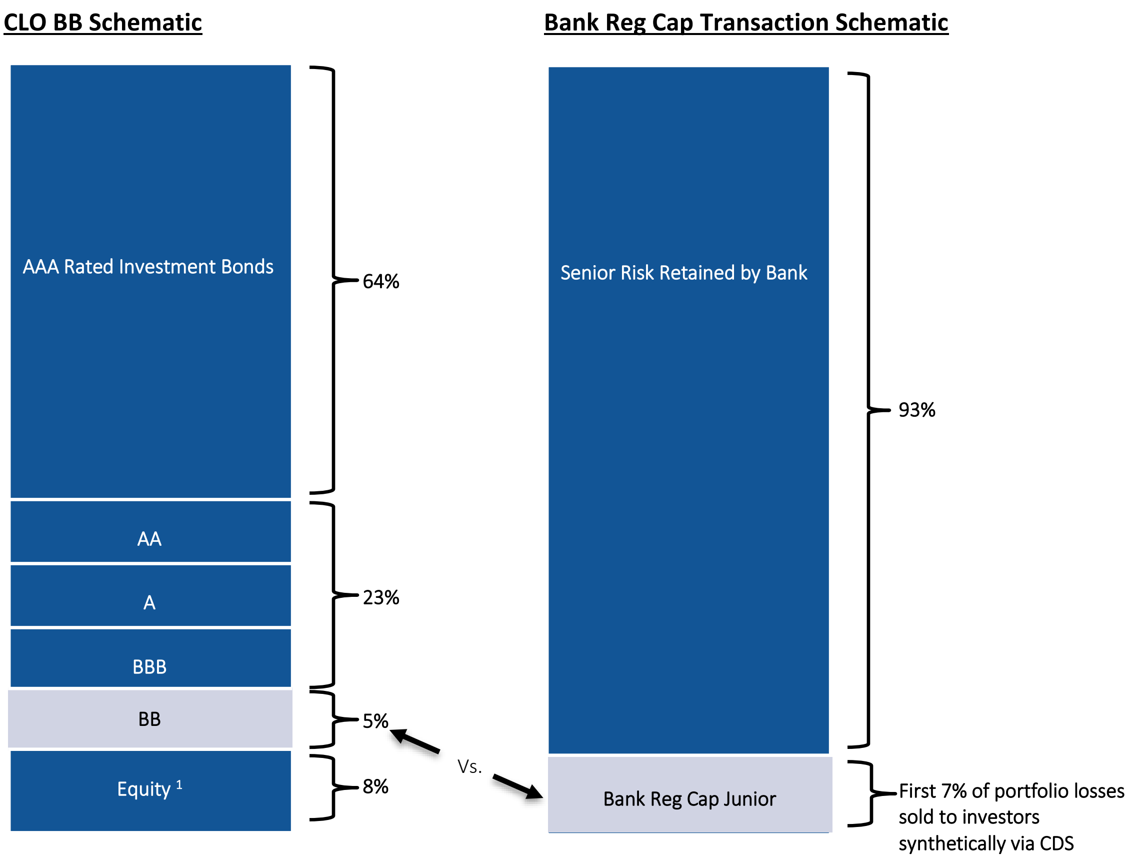
Overview

Bank regulatory capital relief transactions and CLO BB tranches each offer high loss-adjusted yields albeit with different mark-to-market price volatility and credit exposure profiles

Investors seeking to deploy meaningful amounts of capital in the credit space at yields reaching into the high single digits on an unlevered basis face limited options in the current low interest rate environment. Two significant high yielding sectors that Seer Capital regards as having superior risk/reward profiles are bank regulatory capital relief ("reg cap") junior tranches and double-B rated mezzanine tranches of Collateral Loan Obligations ("CLO BB"). In this paper, we analyze and compare the relative value of reg cap and CLO BB and find much to like in both sectors.

Exhibit 1: Transaction Structures – Risk Tranching

CLO BBs have 8% equity protection while reg cap may have 0% or a small first loss piece retained by the issuing bank



[1] *Equity tranche (together with B rated tranche in some cases) is capable of absorbing 25% cumulative default rate on leveraged loans collateralizing the CLO (assuming 60% recovery) before a loss is suffered by double-B rated tranche.*

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Exhibit 2: CLO BB vs Reg Cap Summary:

Item	Reg Cap	CLO BB
Market Size ($bn)	$30-40	$50
Indicative Yield (L+)	8-10%	6.5-7%
Duration	5 yr	7 yr
Underlying Assets	IG Corporates, SME, Consumer Assets, others	Sub IG Leveraged Loans
Asset Credit Risk	Low/Medium	Higher
Credit Protection	Low/Medium	Strong
March '20 low px	80%	60%
Loss Expectation	Low (due to lower risk assets, significant goal alignment with issuer)	Low (due to 8% equity absorbing first ≈25% of loans defaulting)
Bid/Ask Normal	1 pt	½-1 pt
Bid/Ask Stressed	3-5 pts	5-10 pts

What are Bank Regulatory Capital Transactions?

In regulatory capital relief transactions (sometimes referred to as significant risk transfer, or "SRT" transactions), banks purchase a substantial strata of credit protection on specific loan portfolios. Reg cap transactions are generally completed in synthetic format, with the bank retaining the reference portfolio on its balance sheet and purchasing credit protection on a junior tranche and sometimes a mezzanine tranche via a credit default swap. The credit default swap is often written by a special purpose vehicle ("SPV"), which issues notes to investors and holds the proceeds of the notes in a cash deposit. The cash deposit is used to fund credit protection payments to the bank under the credit default swap in the event of losses on the reference portfolio. At the termination of the deal, the remaining cash collateral that has not been used to compensate the bank for losses is returned to investors. The bank pays a protection premium to the SPV, which is paid to investors as spread on the notes. In some cases the bank simply issues a credit linked note off its balance sheet linked to the performance of the specific tranche of the reference portfolio.

A typical reg cap junior tranche attaches at 0 and detaches at 7% on a portfolio of 100 revolving loans to global large corporates, paying L+8-10% spread

Reg cap transactions often involve the sale of the first loss tranche of credit risk on the portfolio. Banks work to optimize the cost of the transactions relative to capital and other benefits, and in some cases retain a first loss position up to 1-2% in order to reduce the cost of protection. In some transactions the originator also retains a certain amount of losses per annum in the form of "synthetic excess spread," however this mechanism leads to unfavorable regulatory treatment in many jurisdictions. The first loss retained, as well as the thickness of the tranche sold, is driven by the credit quality and granularity of the assets in the underlying portfolio. The junior tranche of most transactions prices at a spread of approximately 8-10% over the relevant floating rate index. A typical benchmark transaction involves the transfer of the first 7% of losses on a portfolio of approximately 100 revolving credit facilities to global corporate investment grade and crossover companies, replenishable by the issuing bank subject to strict criteria for 2-3 years. Credit risk assumed by investors in reg cap transactions varies significantly depending on the risk profile of the underlying assets and deal structure.

What are CLO BB?

A typical CLO BB tranche attaches at 8% and detaches at 13% on a portfolio of 175-200 leveraged loans, paying L+6-7% spread

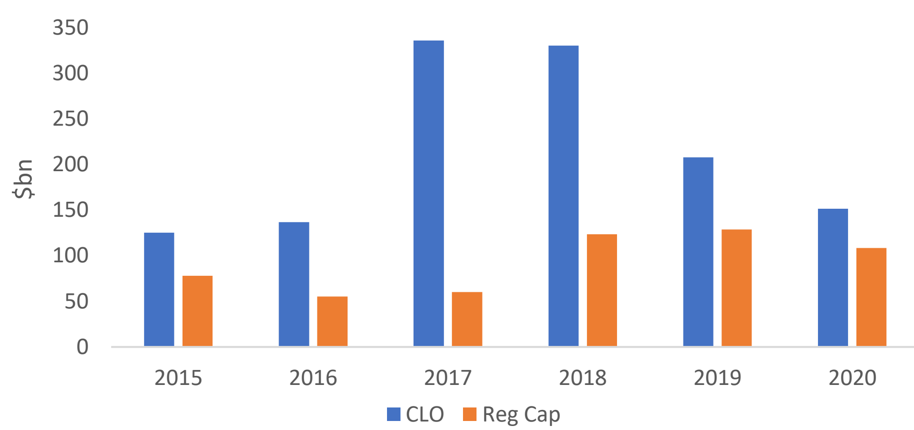
In a typical post financial crisis CLO ("CLO 2.0"), partial exposures from 175-200 syndicated leveraged loans are acquired by an SPV, which issues notes to investors. The CLO may reinvest prepayments and other loan distributions in new leveraged loans for a period of 5 years as directed by the manager. The BB rated tranche typically represents 5% of the structure and has 8% equity beneath it. In favorable markets, BB tranches typically price with a spread of 6-7% over the floating rate index. CLO credit tranches also benefit from the excess spread between the asset portfolio and the cost of the liabilities, which is trapped to provide additional credit support in stress scenarios. With subordination plus excess spread, the BB tranche enjoys approximately 10% total credit support. Assuming 60% recovery on any defaulted leveraged loans in the underlying portfolio, 25% of the loans can default before the BB tranche suffers any reduction in return (25% x 40% = the 10% credit support). In a recent study, Standard and Poor's indicated that they have not recorded a default on any CLO 2.0 tranche, out of more than 11,000 tranches rated, including 1,500 BB rated tranches.

Relative Market Sizes

	Outstanding Market ($bn)
Reg Cap	*$30-40*
CLO BB	*$50*

While many reg cap transactions are private, reliable estimates put issuance volume in the range of $100-120 billion of assets protected per annum over the last several years, with tranches placed equal to about 10% of that figure. We estimate $30-40 billion of reg cap tranches currently outstanding, based on issuance and average duration of reg cap deals. Meanwhile, the CLO market has grown considerably in recent years, in tandem with the rapid growth of the leveraged loan market, the collateral underlying most CLOs. Private equity firms have raised enormous amounts of capital and continue to deploy it to finance leveraged buyouts, using leveraged loans to do so. Overall volume of CLOs outstanding is approximately $1 trillion, of which BB rated tranches comprise approximately 5%, or $50 billion.

Exhibit 3: Reg cap and CLO issuance volume



Reg Cap figures reflect total assets referenced. Source: European Banking Authority, Seer Capital Research, JP Morgan

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Portfolios and Asset Selection

Reg cap investors can assume a wide range of credit exposures alongside leading commercial banks

In reg cap transactions, banks buy credit protection on a portion of their core lending portfolio, originated with the intent to hold. The protection buyer (issuer) is required to retain at least 5% of each underlying exposure on its balance sheet, however in practice banks usually retain significantly more than 5%, promoting goal alignment between issuing banks and investors. In some instances, bank reg cap issuers also retain a first loss exposure, which further aligns goals. Banks issue regulatory capital relief transactions backed by a variety of assets (see Exhibit 4). These transactions have become a vehicle for investors to gain exposure across the credit space.

Exhibit 4: Examples of assets included in reg cap transactions

Agricultural Loans	Emerging Market Loans	Residential Mortgages
Auto Leases	Large Corporate—IG	Residential Mortgages-- High LTV
Auto Loans	Large Corporate—Crossover	Shipping Loans
Capital Call Facilities	Large Corporate-- Disclosed Names	Small Ticket CRE Loans
Commercial Real Estate Loans	Leveraged Loans	SME Loans-- Mid Cap
Consumer Loans	Non-Performing Loans	SME Loans-- Small Cap
Counterparty Exposures	Project Finance Loans	Trade Finance

Banks achieve a range of benefits from reg cap transactions. The primary driver of the transactions is commonly believed to be regulatory capital relief, i.e., reducing the amount of capital that a bank is required to hold against a given portfolio. Regulatory formulas for assigning risk weights and calculating capital and buffers are complex and onerous. Many banks, particularly in Europe, trade at significant discounts to book value. This means that it is generally cheaper and more efficient for banks to release capital using reg cap transactions than to raise capital in the equity markets. But even for banks with excess capital, there are numerous motivations to complete reg cap transactions, as evidenced by the significant growth of the market in recent years across a wide variety of bank issuers.

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Exhibit 5: Bank motivations for regulatory capital transactions

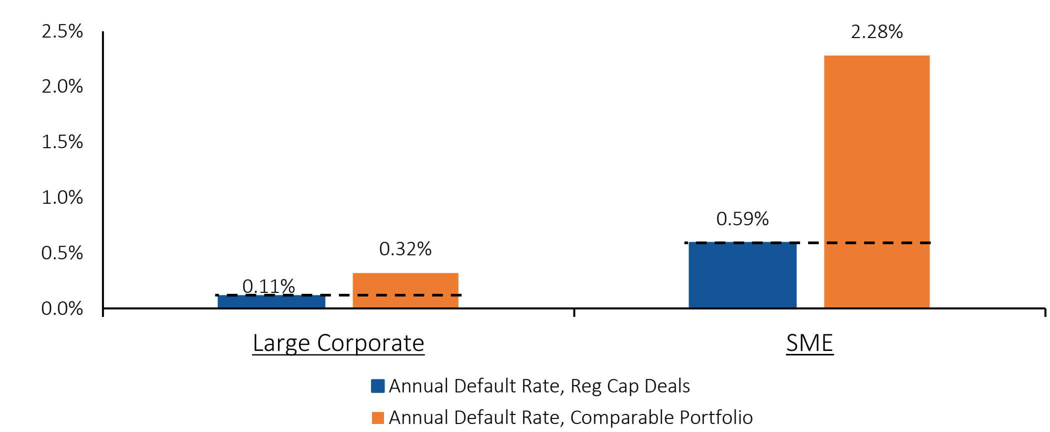
Regulatory capital relief transactions help banks support their lending business and manage capital and risk

Manage Capital	Manage Risk	Support Lending
• Meet increasing regulatory requirements • Create value by raising capital to buy back shares at a discount • Release capital from low ROE businesses to reallocate • Reduce capital held against asset portfolios with high regulatory capital relative to perceived actual risk	• Reduce provisioning volatility • Manage exposure to large clients • Manage exposure to specific business lines or sectors	• Demonstrate ability to distribute risk • Establish capital market pricing benchmarks for lending / banking relationships • Free up credit lines for key clients and businesses

Because of the many benefits of reg cap transactions, banks are strongly motivated to preserve access to the market. This requires careful selection of credits to be included in portfolios, to ensure that the transactions perform well. And in fact, historically, assets included by banks in reg cap transactions have performed significantly better than similar assets held on bank balance sheets, according to a recent paper from bank regulators.

Exhibit 6: Default Performance of Reg Cap Deals vs. Comparable Exposures

Positive selection bias means that assets included in reg cap transactions have historically outperformed



Source: September 2019 Discussion Paper on Synthetic Securitisation by the European Banking Authority (EBA). Comparable portfolio constitutes a comparable but broader portfolio of the bank. Based on a study of 70 transactions executed by 14 banks covering the period 2008-2019, including 26 large corporate transactions and 21 SME transactions.

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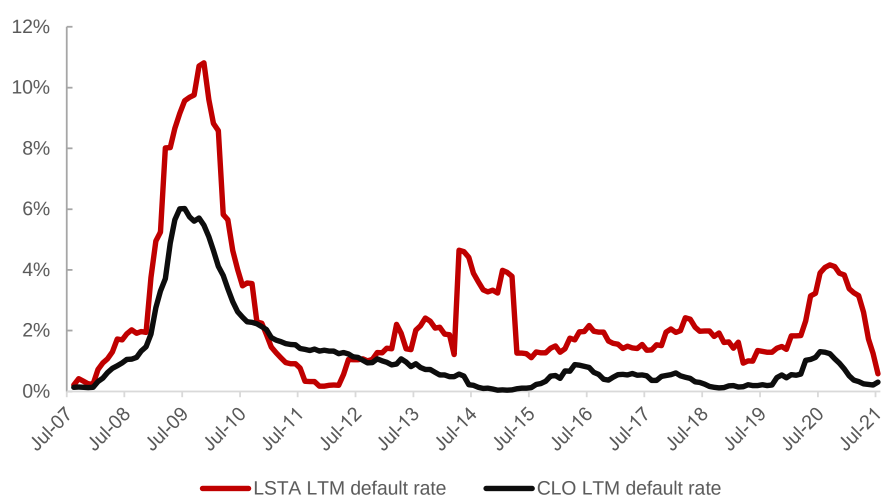
CLO Asset Risk Profile

As distinct from reg cap transactions, where the underlying loans are originated with the intent to be held, CLOs' underlying collateral is comprised of leveraged loans acquired by the asset manager expressly for the purpose of creating the CLO. Also unlike reg cap, CLO managers in the US are not required to retain any of the assets or any of the bonds of the CLO, and the equity in the CLO is often purchased by an investor unrelated to the asset manager. CLO managers are motivated to acquire assets to ramp-up portfolios and generate more fee income.

In some cases, managers may face conflicting incentives between CLO equity and debt investors—CLO equity investors can be advantaged by selection of higher spread credits that may have more risk, while debt investors are advantaged by the selection of lower risk credits. Nonetheless, leveraged loans included in CLOs have historically outperformed the overall leveraged loan market. Managers are motivated to select credits carefully, to protect their track record and ensure ability to issue additional CLOs in the future. With the growth of CLO issuance, CLO investors now account for over 70% of new leveraged loan purchases, so it may be more challenging for them to outperform in the future.

Leveraged loans included in CLOs generally perform better than the overall market, although this trend could come under pressure

Exhibit 7: Performance of CLO Leveraged Loan Collateral vs Leveraged Loan Market Overall



Source: Nomura

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Investment Strategies and Differentiation

Reg cap investing requires detailed due diligence of bank lending practices and deep understanding of complex regulatory considerations

Reg cap investing offers a menu of different asset types and transaction structures. Exhibit 8 depicts the combinations of asset risk profile, structure, and returns available in the reg cap market currently. Investors must understand the motivations and lending practices of the issuing bank, in addition to performing due diligence on the assets in the initial portfolio and agreeing on detailed parameters for replenishment. They must negotiate the key terms of the credit default swap that serves as the mechanism for transferring the risk on the portfolio, understanding where key risks lie while bearing in mind the regulatory sensitivities of the issuing bank. Many banks complete their issuance via a few club deals each year, approaching only selected experienced and reliable investors, to ensure efficient execution. Only an experienced investor in reg cap transactions, who is familiar with the motivations of and maintains relationships with key issuing banks, who understands a range of bank lending assets, and who appreciates the key risk factors in the documentation, can reliably construct a portfolio that generates attractive returns relative to the risk.

Exhibit 8: Sample Unlevered/Levered Yields: CLO BB vs. Reg Cap

Reg cap deal structure and pricing depends on the risk profile of the underlying portfolio

Deal Type	Reg Cap Junior Tranche				CLO BB
Asset Type	Cap Call Facilities	Large Corp	SME	Mid Market / Lev Loan	Lev Loan
Asset Risk Profile	Low	Moderate	Moderate	Higher	Higher
Number of Names	50-100	100-200	>1000	100	150-200
Names Disclosed	No	Yes	No	Yes	Yes
Attach-Detach%	0-4	0-7	1-8	1-10	8-13
Unlevered Spread	**6.5%**	**8.5%**	**9.0%**	**10.5%**	**7.0%**
Financing Terms					
Advance Rate	65%	55%	50%	40%	30%
Spread	2.0%	2.5%	2.5%	3.0%	1.25%
Levered ROE (Spread)	**14.9%**	**15.8%**	**15.5%**	**15.5%**	**20.4%**

Discount margin, financing spread, and ROE shown as spread to relevant floating rate benchmark. Indicative financing terms for sample CLO BB and reg cap transactions.

CLO BB investors assume limited credit risk in portfolios of leveraged loans with relatively uniform capital structures and credit enhancement. They nevertheless need to be able to distinguish between top-tier managers, who are more experienced and successful in selecting underlying credits. These issuers' CLO bonds tend to trade at tighter levels, particularly in more challenging markets. Investors also need to identify industries at risk of downturn and select CLOs with lower allocations to those industries. Even the most severe shock impacting one or a handful of industries is highly unlikely to cause losses at the BB level. However, such an event would be expected to cause BB bonds of CLOs with the highest concentrations in those industries to be more volatile from a mark-to-market perspective and to trade at a discount to other CLO BBs.

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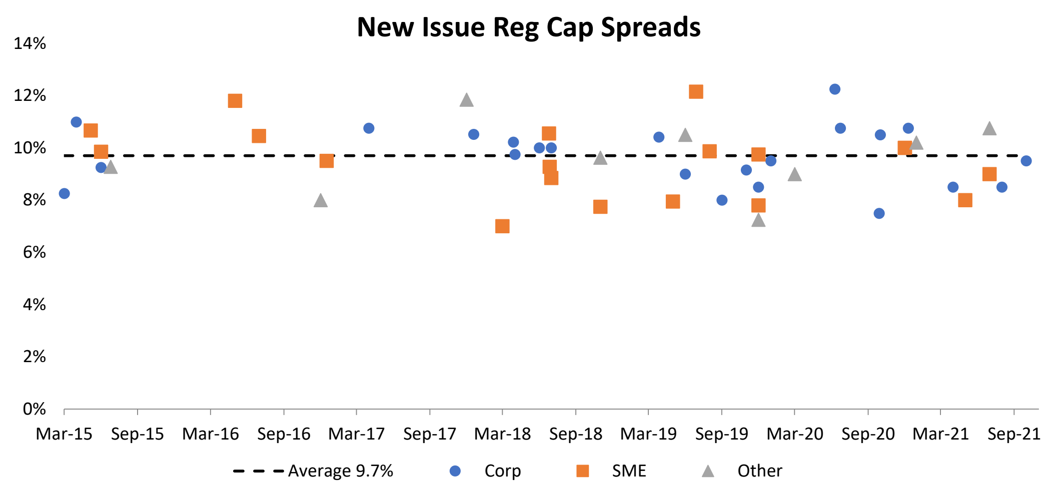
Trading: Reg Cap vs. CLO BB

Because of their complexity and barriers to entry for investors, reg cap transactions are typically distributed primarily among a small group of investors or "club" focused on the strategy. These investors typically manage locked up capital in funds dedicated to regulatory capital transactions. Return targets for these funds are generally in the high single digits, or the low teens for those funds that allow for the use of modest leverage. On the supply side, banks have limits on the premium they are willing to pay for regulatory capital relief transactions based on costs of alternative means of raising capital. During periods of market stress, this effective cap on risk premium leads banks to structure transactions more conservatively and / or select higher credit quality assets, rather than pay higher spreads. The market maintains a healthy balance between a growing number of banks recognizing the benefits of the product and a small but growing pool of investors with the requisite skills to invest in the space. As global asset allocators recognize the high, stable, and uncorrelated return profile of carefully selected and managed portfolios of reg cap transactions, a number of specialist reg cap investors have recently grown their asset bases.

Exhibit 9: New issue spreads of reg cap transactions

Reg cap market benefits from equilibrium between supply and demand, keeping new issue pricing wide but in a relatively tight range



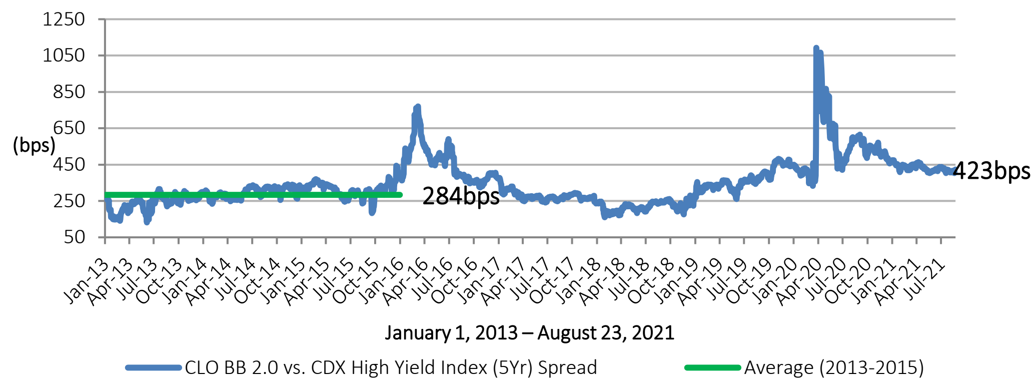
Source: Seer Capital Research

CLO BB tranches are typically held by hedge funds, many of whom offer quarterly liquidity to their investors and employ mark-to-market leverage. As noted above, CLO BB bonds are homogeneous in type of collateral and capital structure, and are fairly liquid in most markets, with dealers making markets with ½-1 point bid/offer and bonds appearing frequently on bid lists. Given the liquidity and very strong credit protection of BB CLOs, repo financing is readily available on attractive terms, creating potential for returns on equity in the range of 20% or higher.

CLO BBs generally trade in line with macro risk sentiment, and the overall market generally moves on a magnified basis relative to high yield credit markets. Within the CLO BB asset class, deals issued by experienced top performing managers trade better, and deals with larger than average exposure to troubled industries and troubled credits trade worse. At times CLO BBs have been victims of their own favorable characteristics—since they can be so readily levered, during severe market selloffs, sales by levered buyers to meet margin calls can exacerbate market moves and limit liquidity when it is most required. During periods of distress like February, 2016 and March, 2020, CLO BB spreads widened significantly more than the high yield market, and the bonds declined in price by as much as 40 points. Given the strong fundamental protection offered by CLO BBs, patient investors who can take advantage of such dramatic declines can achieve extraordinary rewards.

__CLO BBs tend to widen more than high yield and reg cap during significant market downturns__

Exhibit 10: CLO BB vs CDX HY Spread Differential



Source: JP Morgan Analytics

In contrast to CLO BBs, reg cap bonds trade "by appointment", with dealers not typically holding inventory or making two-way markets. Many deals require detailed knowledge and analysis to trade and are held by only a small club of investors. These investors typically invest dedicated, locked-up capital on a buy and hold basis. They generally do not hold other types of assets in their reg cap funds, and employ only limited, conservatively structured leverage, so are unlikely to be forced to sell into an adverse market to meet margin calls. The investors also generally have additional dedicated capital to deploy into reg cap transactions at any given point. Therefore, during dramatic market selloffs such as March/April, 2020, the secondary market for reg cap transactions remained open, with activity at constructive levels. Reg cap investors remain confident that banks carefully select and manage the underlying portfolios, and that they will outperform other credit assets, whatever the severity and length of the downturn. Market shocks also limit new issuance because banks have limited appetite to pay wider spreads. As a result investors seeking to take advantage of downturns look to opportunities in the secondary market, which further supports pricing. In March/April, 2020, for example, the reg cap secondary reg cap market was active at prices around 80, while CLO BBs were trading around 60.

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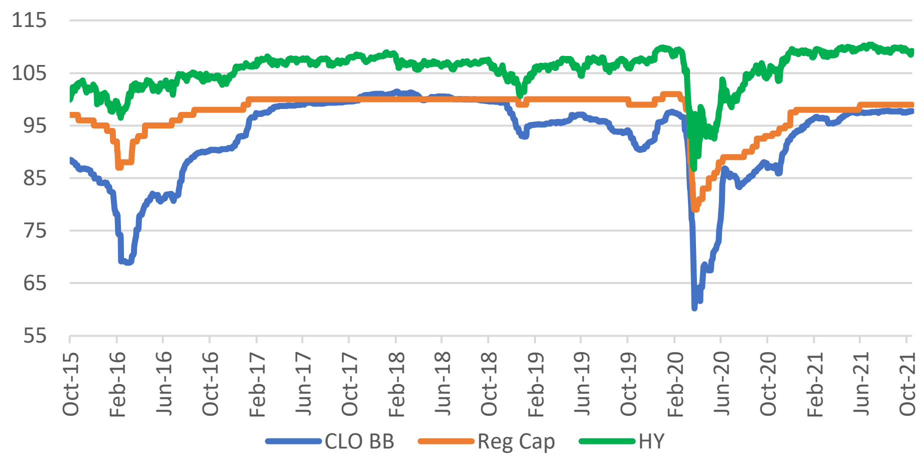
Knowledgeable, dedicated investor base supports secondary market pricing of reg cap transactions, particularly during market downturns

Exhibit 11: CLO BB vs Reg Cap vs. High Yield Index Prices



HY is price of generic 5 year high yield CDX index. Source Bloomberg, Seer Capital Research.

Exhibit 12: CLO BB and Reg Cap Strengths and Weaknesses

	Bank Reg Cap	CLO BB
Strengths	Vehicle for gaining exposure to a wide range of credit assets Assets backing deals originated by banks with the intention to hold on balance sheet Banks positively select assets for inclusion in reg cap transaction portfolios to lower cost of issuance and preserve access to market Support from dedicated investor base helps prices hold up strongly during market shakeouts	Standard, consistent structure Significant credit support protects investors from credit losses in most reasonable scenarios Favorable repo financing can generate attractive returns in normal market conditions
Weaknesses	Complex credit default swap documentation limits market to experienced and sophisticated investors Limited credit enhancement to junior tranche means investors rely on strong credit performance of underlying assets	Assets acquired by CLO manager for inclusion in CLO Investor base relying on repo leverage exacerbates price declines during market shakeouts

Conclusion

Reg cap transactions offer knowledgeable and experienced investors the opportunity to generate stable, high yields from a diversified portfolio of credit assets. Meanwhile, CLO BBs offer attractive returns, more homogeneous portfolios and structures, and little perceived credit risk. CLOs offer greater liquidity than reg cap in normal market conditions, which has both benefits and drawbacks. An investor with knowledge and experience across the structured credit universe, investing locked up capital with return targets in the low teens, could take advantage of the favorable characteristics of both asset classes to construct an optimal portfolio. The investor can accumulate a stable portfolio of reg cap investments, while opportunistically adding CLO BBs at discounted prices using limited leverage when market opportunities arise.