CQS Strategy Perspectives

Harvesting the Liquidity Premia in CLO Liabilities

MARCH 2017

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CQS is a credit-focused, multi-strategy asset manager. Founded in 1999, CQS is headquartered in London and has a presence in key global markets. Our approach centres on fundamental analysis to identify absolute and relative value globally across corporate capital structures and asset classes. This fundamental research is combined with active investment management to create value for our investors. Since launching our first strategy in March 2000, we now manage alternative, long-only and bespoke mandates for institutional investors globally. Our robust operations and risk management platform provides all client mandates with liquidity management and risk monitoring, enabling our investment professionals to be nimble and effective in all market environments. CQS is regulated by the FCA in the UK, the SFC in Hong Kong, ASIC in Australia and registered with the SEC in the US, with a presence in the Channel Islands, Cayman Islands and Luxembourg.

We see the present investment environment providing substantial opportunity in credit markets. One area that we see particular value is in the more illiquid sector where an 'illiquidity premium' is available for longer-term investors with patient capital. In 'Harvesting the Liquidity Premia in CLO Liabilities', we have focused on what we believe is potentially an attractive opportunity in collateralised loan obligation (CLO) liabilities.

Key Points

- There has been a sustained recovery in high yield credit since February 2016. However, liabilities of collateralised loan obligations (CLOs), and in particular European CLO liabilities, have lagged the rally and now appear relatively cheap
- Investors could have the opportunity to harvest a liquidity premium offered by the relatively more illiquid CLO sector and gain exposure to high yield risk at an attractive entry point
- Even if high yield corporate risk remains stable at current levels, we believe that CLO valuations should continue to correct
- We believe patient, agile capital has the flexibility to identify these relative value opportunities and benefit from rapidly-changing market conditions, in particular in this less liquid part of the credit spectrum

Backdrop

Post 2008, mispricings have tended to be more pronounced and persist longer due to:

1. The elimination of most proprietary trading desks across banks by regulation (Dodd-Frank), resulting in significantly reduced ability to intermediate risk by Dealers
2. Tighter constraints and higher regulatory capital costs under Basel III/IV for various types of risk held by banks
3. Increased fragmentation of the Dealer community in retracement from global bank model; sizeable reduction in the amount of leverage offered to investors
4. Institutional credit investors in Europe, the US and Asia facing divergence in investment parameters and constraints due to differences in regulations and domestic monetary policies

In prior CQS Strategy Perspectives, we highlighted that the changes to global credit markets have created mispricings of credit risk and an environment rich in relative value opportunities. Despite the fact that these structural changes make tactical trading more challenging, this new environment is positive for active managers with patient capital, because markets take longer to re-adjust. This view has been the basis of our preference for a global, credit-focused multi-strategy approach to investment.

In this paper we examine liquidity premia in the context of credit markets. Academic studies note that liquidity premia typically comprise between 20% and 40% of credit spreads, but can be as much as 80% of spread in periods of stress[1]. Additionally, liquidity premia in credit are correlated to broader market beta, not only to idiosyncratic credit risk; they tend to decline as markets rally and increase in sell-offs.

From our analysis we believe that European CLO liabilities are an attractive investment opportunity as they have lagged the rally in global high yield credit since February 2012. This positive stance is supported by our favourable view of senior secured loans as an asset class. We believe that the complexity premium has remained constant in CLO liabilities, implying that the liquidity premium is slower to adjust. This liquidity premium should continue to correct, even if high yield spreads remain stable at these levels. As such, investors could have the opportunity to harvest the illiquidity premium and gain exposure to high yield risk at an attractive entry point.

[1]Source: Huang, J.-Z., and M. Huang, 2012, 'How much of the Corporate-Treasury Yield Spread is Due to Credit Risk', Review of Asset Pricing Studies, 153-202.

Liquidity premia in credit spreads have been difficult to measure or explain

In theory, credit spreads reflect the probability of default by the borrower multiplied by the loss-upon-default. In practice, credit spreads trade wider than most expectations of future default rates or recovery rates. The differential is typically broken into two residual risk-factors: (i) liquidity risk, the ability to sell or buy the corporate bond without moving the market price and; (ii) complexity risk, the additional risk management or analysis required to evaluate the credit instrument.

The complexity risk can be isolated by comparing markets of similar structures (for example, 2nd lien senior secured loans versus subordinated high yield bonds) or by looking at comparable markets with reduced complexity (such as corporate bonds versus credit default swaps). It should also be constant over time, as most of the variance is expressed in the liquidity risk premium.

The two figures below illustrate a simple way to isolate liquidity risk premia within the US high yield corporate bond market. Figure 1 (below) shows two monthly metrics for default and recovery within the US high yield bond market over the last four years: (i) the actual recovery rate over the preceding 12-month period for defaulted US high yield bonds within Moody's portfolio of coverage and; (ii) Moody's forecast for US high yield default rates for the forward 12-month period. We can observe that realised recovery rates vary materially due to several factors such as the availability of financing for buyers, correlation of defaults across sectors, and other macro factors. Moody's default forecasts are driven by its expectations for credit trends in the near-term against a backdrop of its macro-economic forecast.

Figure 2 (below) in our view is also interesting. The orange line shows spreads for the US high yield bond market over the last four years. The blue line is the arithmetic calculation of the expected loss for the US high yield bond market as per Moody's forecasted default rate and realised recovery rate, namely the expected loss = expected default rate * (1 – recovery rate). The shaded area shows the residual, which broadly comprises the liquidity premium (assuming that high yield bonds have been similarly complex over the last four years). At present, the residual comprises 45% of the spread, but this has ranged between 30% and 80% over the last four years. In other words, liquidity premia in the US are on the tighter (richer) side of the range observed in the last four years. Importantly, default rates are likely to remain low. This is in part the result of improved economic conditions and due to monetary policies adopted by central banks globally, which have led to substantial refinancing and meaningful pushing out of the 'maturity wall' for riskier credits.

Academic studies have struggled to quantify the drivers of liquidity risk premia (or the differential in the light grey area in figure 2) for some time, as it is now referred to as the 'credit spread puzzle'. Academic literature and publications from regulators and central banks note that this liquidity premium has comprised as little as 10% of credit spreads and as high as 80% of credit spreads, with the majority putting broader liquidity premia between 20% and 40% of credit spreads[2]. Most academic studies look at liquidity premia across the entire credit market, not simply high yield, but also investment grade and liquid sovereign credit. Intuitively, we would expect liquidity premia to be proportionately less in assets that are more similar to risk-free assets, such as sovereign bonds.

Importantly, academic analysis does show that liquidity risk premia vary for long periods of time and can be inconsistent with underlying changes in default expectations of credit risk or other trends in the underlying asset market. Moreover, academic literature also shows a strong correlation with liquidity premia in credit spreads and broader market beta. Credit spreads are far more sensitive to movements in the broader equity index than to movements in the respective corporate equity price (on the order of 2x to 4x)[3].

Figure 1: Moody's US High Yield Default and Recovery[4]
Forecast (12 month Forward)

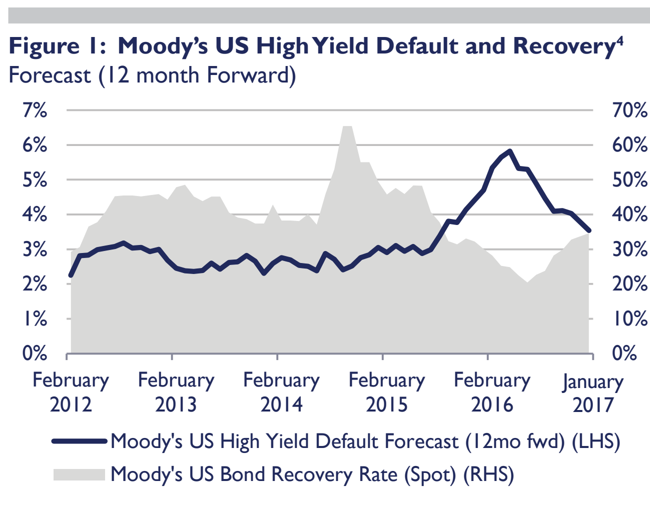
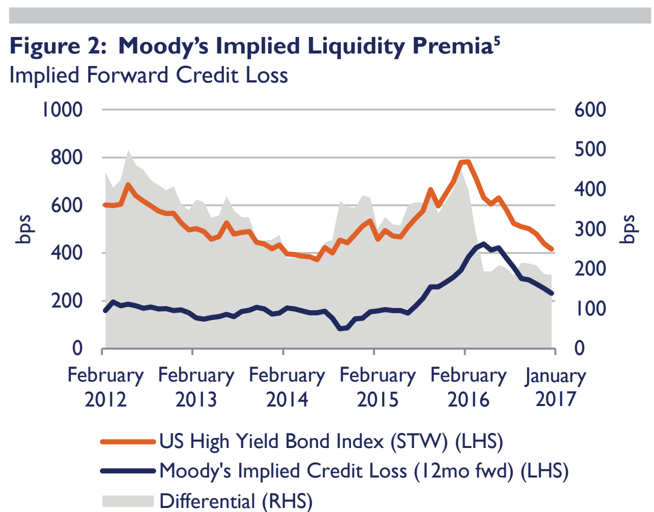


Figure 2: Moody's Implied Liquidity Premia[5]
Implied Forward Credit Loss



Sources: [2]Hui Chen, Rui Cui, Zhiguo He and Konstantin Milbradt, 'Quantifying Liquidity and Default Risks of Corporate Bonds over the Business Cycle', MIT, 17 August 2016. [3]Christopher Culp, Yoshio Nozawa, Pietro Veronesi, Option-Based Credit Spreads, University of Chicago, 31 October 2016. [4]Moody's monthly default data as of end 31 January 2017. [5]Moody's, BofA Merrill Lynch US High Yield Indices (H0A0), both monthly as of 31 January 2017.

Historically, we understand some institutional investors, including insurance companies, pension funds and sovereign-wealth funds, have had a preference for harvesting liquidity premia. These investors are not subject to daily or even quarterly redemptions and often have the portfolio management flexibility to endure meaningful mark-to-market volatility, providing few losses are crystallised (defaults). This investor base has benefited for decades in capturing excess returns from illiquidity premia.

Ultimately, the residual between theoretical credit spreads (based upon default and recovery expectations) and actual credit spreads varies significantly and for protracted periods. We broadly assign this residual into complexity risk premia (stable) and liquidity risk premia (variable). As a global credit asset manager with deep fundamental research capabilities we like complexity risk in credit spreads, as it places a premium on an asset managers' skill in evaluating complicated credit products.

While complexity risk within one type of product or market is fairly stable over longer periods, in contrast, liquidity risk premia vary meaningfully. This provides opportunities to capture shifts in liquidity premia through dynamic asset allocation within asset classes and across geographies.

Observed behaviour in liquidity spread premia has implications for portfolio management

Extreme price inflection points are more likely to be indicators of attractive illiquidity premia. However, very little risk can typically be put to work at the extremes.

Liquidity risk premia show a consistent trading pattern of rapid acceleration or deceleration around an epicentre. This trend has become more pronounced and prolonged since the 2008 crisis, including since the late 2015/early 2016 sell-off in credit markets. There are two key factors relevant for portfolio positioning around the epicentre of a liquidity spike. First, often only limited trading activity takes place at the wides or tights in spreads, and the last third of the spread movement wider or tighter is characterised by reduced trading volume and larger gaps or 'air pockets'. This is similar to the sharp recovery in spreads after the peak or trough, with moderate trading occurring in the first third of spread tightening. Second, liquidity premia trends slowly wider or tighter for the remaining two-thirds of spread movement, and this is where meaningful trading occurs.

For a portfolio manager, this means that much of the liquidity premium can be harvested over the remaining two-thirds of the price path of spread recovery. Conversely, it also means that a nimble, active portfolio manager can only capture some of the mispriced liquidity premia around the epicentre of a 'V'-shaped spread movement, but will be able to harvest significantly more over the remaining two-thirds of the recovery.

Liquidity premia are more attractive today in specific credit products, such as CLO liabilities

Corporate bond spreads experienced a sharp repricing of liquidity risk premia from Q4 2015 and into January and February 2016, driven by several factors including falling oil prices and market concerns over China's growth. As can be seen in Figure 3 and Figure 4 (below), between June 2015 and mid-February 2016, US high yield credit spreads widened by 70% to 85% and US investment grade credit spreads by approximately 50%. European credit markets widened less, with European high yield spreads some 65% wider and investment grade spreads approximately 40% wider. The bulk (around two-thirds) of the widening occurred between December 2015 and mid-February 2016. The pace of spread recovery was slower, but still with the first third of spread tightening occurring over one to three weeks. It took another six to ten weeks to see the remaining two thirds of spread recovery. In both cases, European markets took slightly longer than US markets.

Figure 3: US High Yield Bonds[6]
Spread vs. $L in bps

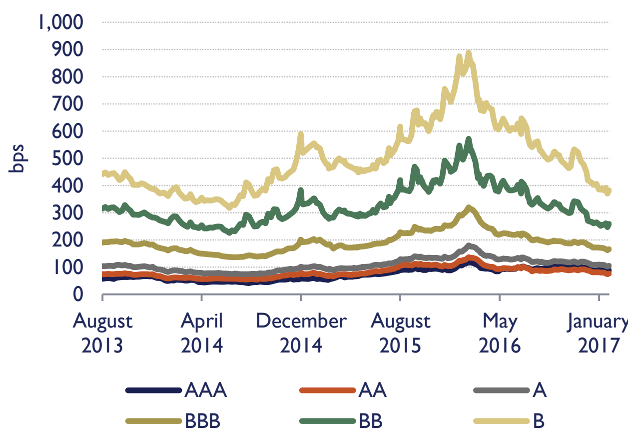
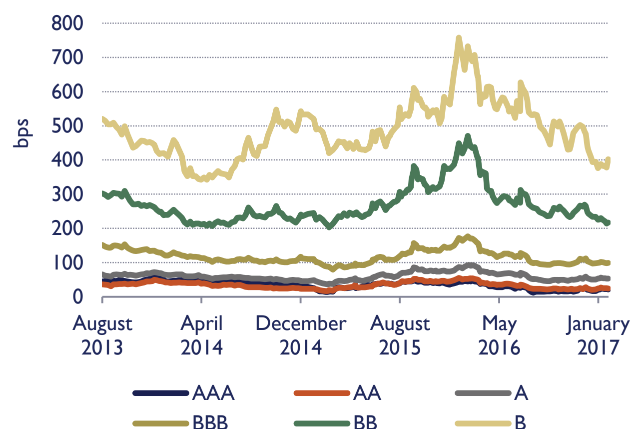


Figure 4: EUR High Yield Bonds[6]
Spread vs. € in bps



[6]Sources: BofA Merrill Lynch US High Yield Index (H0A0) and BofA Merrill Lynch Euro High Yield Index (HE00) as at 31 January 2017.

Over the same period, CLO liability spreads widened proportionately less, between 25% and 65% in the US and 20% to 40% in Europe. The pace of recovery in their spreads was slower. It took approximately 13 weeks to recover a third of the total spread widening in both US CLO liabilities and European CLO liabilities. Figures 5 and 6 similarly show the rally in US and European CLO liabilities since the early 2016 wides. As of today, some CLO liabilities have still not recovered the entirety of the spread widening and in some cases are at January 2016 levels, substantially lagging the rally in high yield corporate bonds and, more importantly, senior secured loans, which are the underlying asset behind CLO liabilities. Figures 7 and 8 highlight the differential between different rating bands of CLO liability tranches and the corporate bond market. The lower-rated tranches have seen greater volatility in the liquidity premia. Figure 8 shows in particular that the liquidity premia has been slower to correct in European CLO tranches.

Figure 5: US CLO 2.0 Liability Tranches[7]
Spread vs. $L in bps

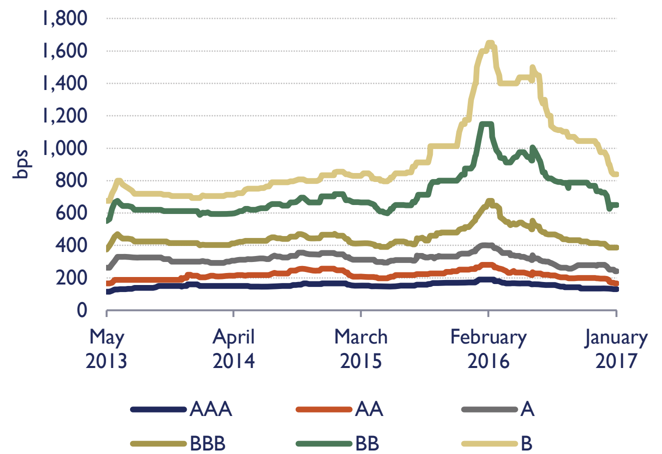


Figure 6: EUR CLO 2.0 Liability Tranches[7]
Spread vs. € in bps

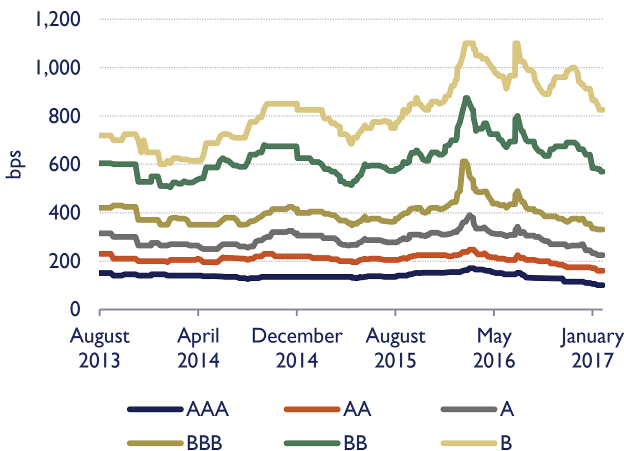


Figure 7: US CLO 2.0 Tranches: Δ to US High Yield Bonds[8]
Spread vs. $L in bps

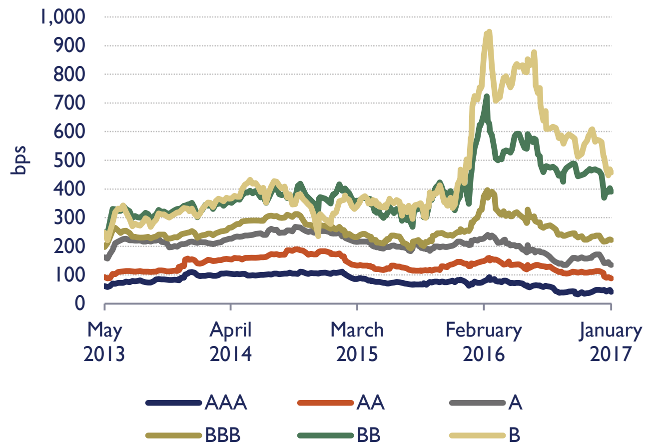
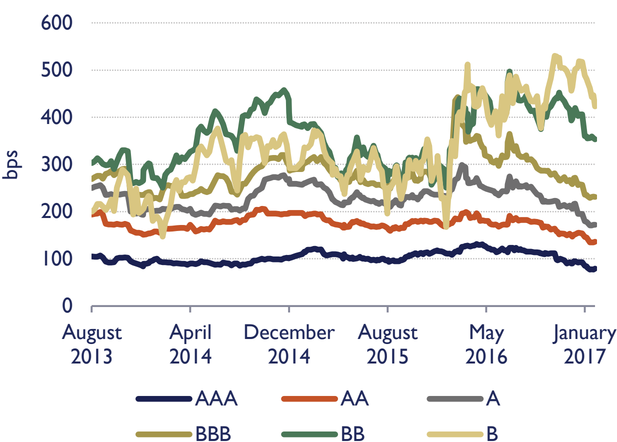


Figure 8: EUR CLO 2.0 Tranches: Δ to EUR High Yield Bonds[8]
Spread vs. € in bps



Conclusion

We believe investors who have 'missed the recovery' in US and European high yield credit spreads should look towards CLO liabilities as an effective means to gain exposure. We particularly favour European CLO liabilities at current levels, as the illiquidity premium has been particularly slow to correct. Many European CLO tranches, particularly in the BBB and below rating bands, are still trading at levels wider than prior to the February 2016 sell-off, despite the underlying senior secured loans and the European high yield bond market having largely retraced that sell-off.

Even if underlying corporate bonds spreads remain stable at current levels, we anticipate that liquidity premia will continue to recover. Consequently, we believe that further spread tightening should occur in CLO liabilities even if broader credit markets remain unchanged.

[7]Sources: CitiVelocity.com. [8]CitiVelocity.com, BofA Merrill Lynch US High Yield Index (H0A0) and BofA Merrill Lynch Euro High Yield Index (HE00) as at 31 January 2017.

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The BofA Merrill Lynch US High Yield Index (H0A0): The BofA Merrill Lynch US High Yield Index tracks the performance of US dollar denominated below investment grade corporate debt publicly issued in the US domestic market.

The BofA Merrill Lynch Euro High Yield Index (HE00): The BofA Merrill Lynch Euro High Yield Index tracks the performance of EUR denominated below investment grade corporate debt publicly issued in the euro domestic or eurobond markets.

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