



Special Report: CLO CCC Buckets *Key Variations in Terms and Performance*

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Overview

Even before last fall, when the financial crisis spread to the wider economy, there was much speculation about how eroding corporate credit quality would affect CLOs, especially their triple C buckets (“CCC buckets”). These buckets penalize CLOs with excess exposure to low-rated (CCC/Caa) securities, diverting interest proceeds to restore the CLO’s credit quality. The consensus seemed to be that overflowing CCC buckets would cause CLOs to be the next CDO type to “melt down.” This is certainly one possible view.

But, as we shall see, it is not easy to generalize about how CCC buckets will impact all CLOs. The terms of these buckets vary so much from CLO to CLO that two CLOs with identical portfolios could perform very differently in a downturn depending on the CCC bucket alone. We’ll discuss some of these many variations in a moment. Before doing so, it is important to note that these variations pose a significant challenge to those valuing CLOs but also a major opportunity to those investing in them.

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Background

What can we say about CCC buckets in general? Not as much as we might want. First, most of the CLOs that performed well in the last downturn did not have CCC buckets. Thus, at least in that downturn, CCC buckets were not indispensable to good performance. Second, we should keep it mind — whatever good or bad they may cause in this downturn — that CCC buckets are rarely, if ever, modeled, ie, incorporated into the quantitative rating analysis. Thus, even though some CCC buckets will have a material impact on CLO cash flow, the rating agencies cannot easily model rating transitions (downgrades to CCC) and therefore did not model CCC buckets.¹

This means that two CLOs with identical indenture terms and identical portfolios would have identical ratings even if one has and the other lacks a CCC bucket or, more typically, even if one has very strict and the other very lenient CCC bucket terms. Indeed, one of the key reasons these buckets vary so much is that the variations are not reflected in the ratings. There is no rating reward for strict terms and no penalty for lenient terms.

Short History

Before we look at some of the many ways they vary from deal to deal, let's review the history of these buckets. CCC buckets are one of several "structural features" imposed on CLOs after the last economic downturn. Another key feature imposed at the same time was a limitation on the purchase of deeply discounted securities. These structural features were intended to prevent CLO managers from playing "par games" to avoid OC test violations. In early CLOs, the CLO enjoyed full par credit for every performing security no matter how low its rating or purchase price. Only when the security defaulted did the CLO carry the security at the lesser of (i) its current market value or (ii) an assumed recovery value. The new structural features no longer rewarded the purchase of securities viewed as likely to default by the rating agencies (low rating) or by the market (low market value). CCC buckets created a mechanism for reducing the par credit for an excess of low-rated securities. Since CLO Managers want full par credit for every security until actual default, the haircut was expected to discourage dabbling in weak credits to generate short term (what we might call "phantom") par.²

Key Variations

Although the concept of the CCC bucket was relatively simple the variations were many. Here are four key variations: (1) the size of the bucket and the related issue of determining which securities constitute securities in "excess" of the bucket, (2) which rating to use in determining CCC status (3) how to calculate the "haircut" to par of the excess and (4) what happens to the cash-flow diverted by the "haircuts." Let's consider each of these separately.

Size. Although most CLOs have a 5% CCC bucket, smaller (2.5%) and larger (7.5% to 10%) buckets were not uncommon. In many cases, larger buckets were the outcome of aggressive negotiation from the banker or collateral manager. In later transactions, CLOs might also enjoy a larger bucket if the CLO used a more conservative rating for the bucket than other CLOs. We will describe this distinction in the reference rating in a

¹ In its CLO evaluations, PF2 incorporates haircuts to all CCC securities through its proprietary model, *ProForma2™*.

² Although a complete analysis of the motives for generating phantom par is outside the scope of this piece, it is worth noting that one primary reason was to prevent diversion of interest payments away from the CLO's "first loss" investors (often including the CLO manager or an affiliate). These investors bought the often unrated and most difficult-to-place class of debt issued by CLOs. Meeting or exceeding their investment expectations was indispensable to any CLO manager who wished to use CLOs to expand assets under management and execute enough CLOs to generate annuity-like senior fees.

moment. With respect to size, not all 5% buckets are created equal. Their stated size and their actual size may differ depending on how the CLO's documents fill the bucket.

First, in some CLOs, any security with a CCC rating by either S&P or Moody's goes into the bucket. In others, only securities rated CCC/Caa by both agencies fill the bucket. This feature alone could make a big difference in how the CCC bucket affects CLO cash-flow. For example, consider two CLOs with identical portfolios but different terms. One fills the bucket with any security where at least one rating is CCC; the other only if both ratings are CCC. If, in this example, 10% of the portfolio has a CCC rating by at least one rating agency and 4% has a CCC rating by both rating agencies, the way the buckets fills means that one CLO will suffer CCC haircuts and the other will not with respect to exactly the same portfolio.

Second, in other CLOs, only purchased CCC securities are included in the CCC Bucket and subject to haircuts. A security purchased with a B/B2 rating and subsequently downgraded to CCC would NOT be included in the CCC bucket and would never be subject to excess CCC haircuts. Such haircuts would apply only to an excess of securities rated CCC at the time of purchase. For example, consider two CLOs with identical portfolios but different terms. One includes every CCC security in the CCC bucket; the other includes only purchased CCC securities in the bucket. If, in this example, 20% of the portfolio has a CCC rating but only 3% constitute purchase CCC securities (ie, securities rated CCC at the time of purchase), one CLO will suffer CCC haircuts and the other will not with respect to exactly the same portfolio.

Rating. With respect to Moody's, another big difference among CCC buckets is the rating used to determine Caa status. Some CLOs use a default probability rating of the loan obligor called the Corporate Family Rating (CFR). Others use an expected loss rating of the loan itself. As mentioned above, because the CFR is often a rating (eg, Caa1) that is lower than the rating assigned to the same obligor's senior secured loan debt (eg, B3), CLOs that used the CFR as the reference rating for determining which securities were CCC were allowed to have a larger CCC bucket.

Although there had always been some difference between the CFR and the loan rating, Moody's PDR/LGD initiative expanded the cases in which the CFR is lower than the loan rating. As a result, CLOs with a Caa bucket that references the CFR will fill up more quickly than those that reference the loan rating. For example, consider two CLOs with identical portfolios but different terms. In both, 15% of the pool has a CFR of Caa and 5% has a loan rating of Caa. If both CLOs have a 5% Caa bucket but one CLO fills the bucket by reference to the CFR and the other by reference to the loan rating, one CLO will suffer par haircuts while the other does not with respect to exactly the same portfolio, with exactly the same risk profile.

Which rating is the right rating to use for the Caa bucket? Believe it or not, there's a clear answer to this question. The rating should be an expected loss and not a default probability rating. Embedded within an expected loss rating is information about recovery in the event of a default. This information is useful in determining whether and how much to haircut the par credit of a security. In contrast, a default probability rating conveys nothing about recovery and may overstate the risk of a credit. Moody's research shows that in many cases high default probability correlates with high (not low) recovery because early default gives creditors a better opportunity to prevent wasting of assets and resources. Thus, the right measure of whether a security should suffer a par haircut because of its rating, is not a default probability rating but rather an expected loss rating that includes information about recovery.

We should make one final point about variations in CCC buckets and ratings. Although S&P provided one standardized definition of its rating for use in all CLO governing documents, Moody's did not do so. Moody's identified substantive principals that should be reflected in every definition but allowed the actual definition to be drafted on a deal by deal basis. As a result, there are multiple variations in the definition of Moody's rating in CLOs. Although not intended, these variations can often lead to a material difference in the application of the

definition. Because they are highly technical, even a summary of some of these variations is outside the scope of this discussion. However, it is important to remember that, at least with respect to Moody's, this definition is subject to very significant variation for transaction to transaction.

It is worth considering at least one example of how an ambiguity in the Moody's Rating definition has been exploited to improve the CLO's performance metrics. One CLO manager has used a too literal reading of the definition of Moody's Rating to achieve a much better portfolio default probability than other CLOs with exactly the same collateral pool and either a different definition of Moody's Rating or a different interpretation of how the same language operates. How did this work? In general, Moody's requires CLOs to include every senior secured loan in Moody's test of portfolio default probability — Moody's Weighted Average Rating Factor (WARF) Test — at a Moody's rating considered indicative of corporate default probability. This rating is called Moody's Corporate Family Rating (CFR) (and was once known as Moody's "Senior Implied Rating"). In many imprecisely-drafted definitions of Moody's Rating, for each loan in the collateral pool, the Moody's rating is defined as the Moody's CFR "assigned to the loan" (or similar language indicating that the rating is assigned to the loan). When there is no such rating, the definition then requires use of Moody's rating of the loan itself (typically a higher or better rating than the CFR). By focusing on the literal meaning of the words, one manager recognized that Moody's CFR is never assigned to an obligation (a debt instrument like a bond or loan) but is instead assigned only to an obligor (a business entity like a corporation or other legal entity). The manager takes the position that because there is no CFR "assigned to the loan" for most loans in the portfolio, the loan rating itself should instead be used. To fully appreciate what this means, consider two CLOs with identical portfolios that are otherwise identical except that one has a Moody's Rating definition with this ambiguity and the other does not. If every loan in the portfolio is associated with a CFR of B2 (equal to a Moody's rating factor of 2720) but every loan in the portfolio is itself rated B1 (equal to a Moody's rating factor of 2220), exploiting the ambiguity to use the loan rating for the portfolio and not the CFR produces a materially better WARF.

Haircut. Another way that CLO CCC buckets differ is the way they haircut par. Some apply one haircut to all securities (eg, a 30% haircut or, in other words, a carrying value of 70% of par). Others carry excess CCC securities at Market Value, as defined (MV). In this approach, there is no haircut for excess CCC securities as long as the MV of the CCC securities equals their par value. A third (less common) approach is to carry excess CCC securities as though they were defaulted securities, ie, at the lesser of their MV and the recovery assumption.

Of these three approaches, the pure MV is probably both the most reasonable and the most common. It is the most reasonable because a pure MV approach imposes little or no penalty on CCC securities as long as the market views the security favorably, ie, as good credits. For example, consider a CLO in which 15% of its securities are rated CCC. If the average MV of these securities is 99%, a pure MV haircut to the excess CCC securities would be negligible. In most cases, the CLO manager would have only a slight incentive to avoid the haircut by trading the portfolio. However, a bigger haircut to such securities could almost amount to a forced sale rule. Most CLO managers would prefer to sell a CCC security at par and reinvest the proceeds than to carry that security below par while it is trading at a MV equal to par. If a CLO had to carry excess CCC securities either at 70% of par or at the lesser of MV and recovery (typically, 45% or higher), either the CLO's cash flows or the CLO manager's trading decisions would be affected by the CCC bucket mechanic.

Despite the fact that MV is the most common approach, for a long time there was no standard definition of MV in CLOs. *Nearly all CLOs allowed the CLO manager complete discretion to assign MV themselves.* Eventually, a more standardized definition was adopted. However, even this definition continued to allow for significant variations, especially with respect to conflicting policy goals of Moody's and S&P. Thus, even after the more standardized definition, two identical CLOs with identical portfolios, might behave very differently depending upon the terms and application of the MV definition. Because they are highly technical, even a summary of

some of these variations in the MV definition is outside the scope of this discussion. However, it is important to remember that the MV definition is subject to very significant variation for transaction to transaction.

Finally, the rules for filling the CCC bucket also affect CCC haircuts and are another way that otherwise identical CLOs could behave differently. Since haircuts are applied to **excess** CCC securities, CLOs need rules for determining which CCC securities constitute the excess. For example, consider two CLOs with 20% CCC securities in the collateral pool, a 10% CCC bucket and haircuts to MV for excess CCC securities. If half of the CCC securities in this example have a current MV of 50% of par and the other half have a current MV equal to par, there will either be significant haircuts or none at all depending on which securities fill the CCC bucket first. The CLO that fills the bucket with low MV assets first will suffer no haircuts at all. The CLO that fills the bucket with high MV assets first will carry 10% of the collateral pool at 50% of par. Most but not all CLOs require that high MV securities fill the bucket first thereby exposing the low MV securities to haircuts.

Cashflow. The final major variable in the behavior of CCC buckets is the use of diverted cash flow. Early CLOs all included a mechanism, the OC test, for supporting the credit quality of the CDO notes in periods of high defaults. When the test is not satisfied, excess interest is retained to pay back the senior most notes of the CLO, thereby deleveraging the capital structure of the CLO. Later CLOs allowed the manager to reinvest diverted interest in the purchase of more collateral debt securities. There were many minor variations in how these “diversion” provisions worked. For example, some CLOs also limit the total amount of proceeds available for reinvestment and require deleveraging of the capital structure with proceeds in excess of such limit. For another example, some CLOs allow the manager to retain interest proceeds diverted for reinvestment but without reinvesting the proceeds for one or more pay periods so that, if the OC test is subsequently cured without reinvestment, the proceeds can be flushed back down the CLO waterfall.

Conclusion

These are just some of the main variations that arise with respect to CLO CCC buckets. Each of them has the potential to have a material impact on CLO cash flow. Although these variations pose a challenge to those trying to value a CLO security, they also pose an opportunity for CLO investors. It is possible to invest in CLOs that have virtually identical collateral but that will behave very differently because of these variations. (And it is worth noting here that these variations are generally not incorporated into the pricing of the CLO because they were not reflected in the CLO’s ratings.)

In summary, an investor looking for exposure to a CLO that does not have aggressive deleveraging provisions would want a CCC bucket has some or all of the following features:

- is as large as possible (at least 10%);
- references Moody’s loan rating not CFR in determining which securities are in the CCC bucket (and that has as “flexible” a definition of Moody’s rating as possible);
- includes only purchased CCC securities in the CCC bucket;
- haircuts excess CCC securities to MV (with as “flexible” a MV definition as possible);
- is ambiguous on which securities fill the bucket first (or even allows low MV securities to fill first); and,
- diverts cash-flow for reinvestment and never for deleveraging.

In contrast, an investor looking for exposure to a CLO that has aggressive deleveraging provisions would want a CCC bucket that has all of the following features:

- is as small as possible (no more than 2.5%);

- references Moody's CFR and not Moody's loan rating in determining which securities are in the CCC bucket (and that has an "unambiguous" definition of Moody's rating);
- includes all CCC securities (including both purchased and downgraded CCCs) in the CCC bucket;
- treats excess CCC securities the same as Defaulted Securities and haircuts them to the lesser of MV and recover value (and that has a strict definition of MV);
- clearly fills the CCC bucket with only the highest MV securities first; and,
- diverts cash-flow for deleveraging only and not for reinvestment.

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Please contact PF2 Securities Evaluations if you have questions you would like to discuss about this research piece, or if you may like PF2 to prepare a written summary describing our interpretations of how provisions such as those above might affect your CLO.

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