RATING METHODOLOGY
5 November 2025

TABLE OF CONTENTS

Scope	1
Sector overview	1
Rating approach	3
Scorecard	4
Discussion of the scorecard factors	6
Notching factors	11
Other considerations	12
Scorecard-indicated outcome	14
Assigning issuer-level and instrument-level ratings	16
Key rating assumptions	16
Limitations	16
Appendix: Credit ratings and substitute credit quality inputs for LPs	17
Moody's related publications	19

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Rating Methodology

Subscription Credit Facilities

This rating methodology replaces the *Subscription Credit Facilities* methodology published on 21 February 2025. In this update, we have introduced the use of additional types of credit quality inputs for assessing the credit quality of limited partners (LPs) and have introduced new limits on the use of sector-based assumptions and approaches, as well as a threshold above which we would typically seek credit estimates on individual LPs. We have introduced a cap on the Limited Partners Pool Profile factor score where LPs with credit ratings or credit estimates account for less than 50% of the pool's uncalled capital commitments. We have included additional considerations for concentrated LP pools and have clarified the advance rate and maturity benchmark selection when running CDOROM™. We have also added an appendix on our guidelines for using credit ratings and substitute credit quality inputs, and have made editorial changes throughout the methodology to enhance readability.
For additional information, see the related Request for Comment published on 12 August 2025 and Results of Consultation, published on 5 November 2025.

Scope

This rating methodology applies to subscription credit facilities (also referred to as capital call facilities or subscription finance facilities) globally that are used by closed-end private investment funds, including private equity, private credit, real estate, infrastructure and venture capital funds. Private investment funds use these facilities, a form of bridge financing that is secured principally by the capital commitments of the funds' limited partners (LPs), primarily to manage the funds' liquidity needs.

This methodology does not apply to credit facilities that will primarily depend on a fund's net asset value or assets for repayment, even where capital call commitments are also pledged as security. This methodology also does not apply to subscription credit facilities used by open-end funds.

Sector overview

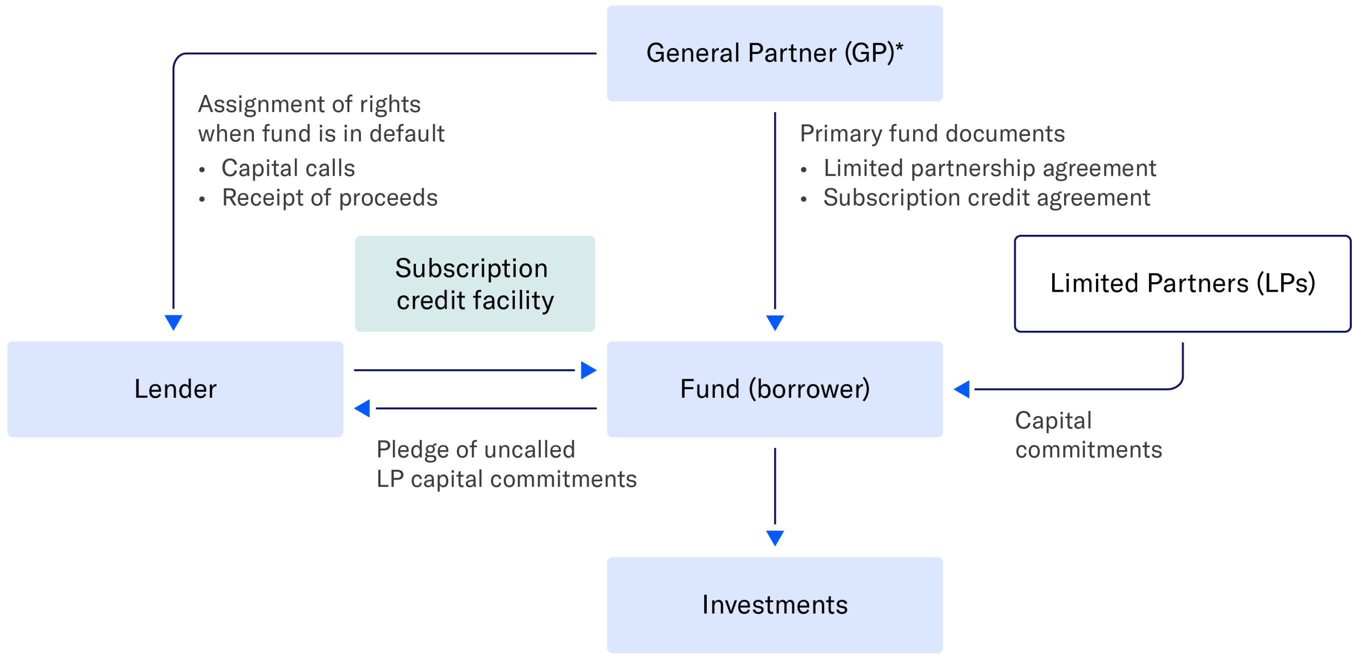
Subscription credit facilities are a form of committed financing that banks and other lenders extend to provide interim financing to closed-end private market funds and other investment vehicles. A fund typically uses these lines of credit for short-term borrowings to bridge the gap between the time it makes an investment and when it calls on capital commitments from its LPs to finance that investment. These facilities are secured by the unfunded commitments of the LPs, who are often high-quality institutional investors.

Subscription lines can enable fund managers to quickly close on investments, plan capital calls from LPs more easily, pay fees and expenses, and potentially enhance the internal rate of return of LP investors.

The terms related to the LPs' commitments to fund capital upon call are laid out in subscription agreements and typically do not include cross-default clauses. Therefore, in addition to LPs' financial capacity, an important component of the likelihood that a fund can receive capital upon calls relates to LPs' willingness to fund it.

Exhibit 1 illustrates the typical structure of a subscription credit facility.

Exhibit 1
Typical structure of a subscription credit facility



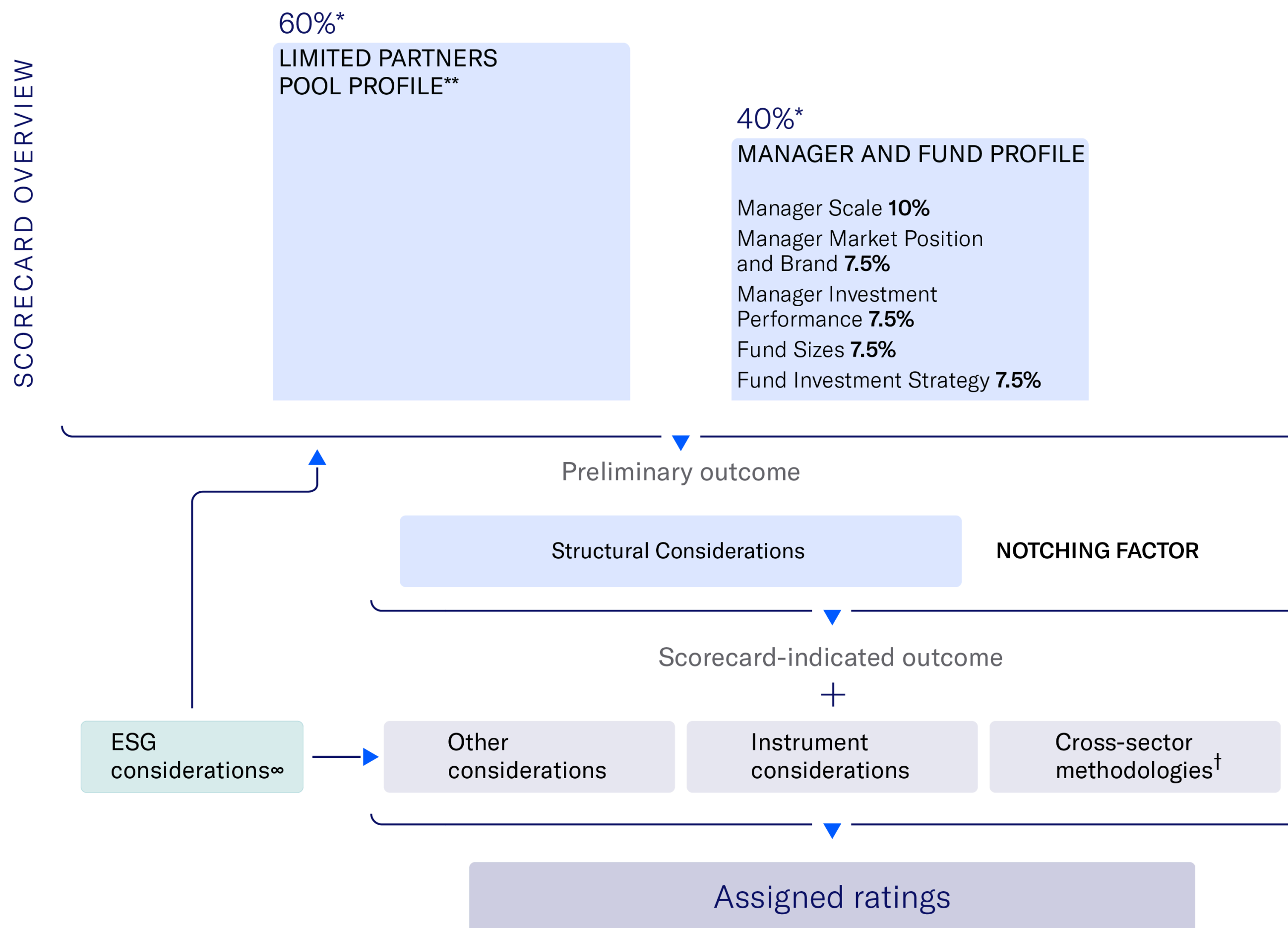
*A General Partner (GP) is a participant in a partnership who has management authority. In the context of an investment fund, the GP is typically the entity or individual that manages the fund's investments and operations.
Source: Moody's Ratings.

Rating approach

In this methodology, we explain our general approach to assessing credit risk of instruments in this sector, including the quantitative and qualitative factors likely to affect rating outcomes.

The following exhibit illustrates our overall rating approach in the analysis of these instruments, which includes the use of a scorecard. The scorecard-indicated outcome may not match an instrument's assigned rating, which is determined by a rating committee. For more information, see the “Other considerations” and “Limitations” sections.

Exhibit 2
Illustration of the subscription credit facilities rating approach



* The weights shown are the standard weights; however, there can be overweighting of factors or subfactors, which can change these weights. See the “Scorecard-indicated outcome” section for details.
**This factor has no subfactors.
∞ Environmental, social and governance (ESG) considerations, including, where available, our opinions of exposure to them as expressed in Issuer Profile Scores (IPSs), may affect scorecard factors and other considerations outside of the scorecard. For more information, see the “Other considerations” section.
† Some of the methodological considerations described in one or more cross-sector methodologies may be relevant to ratings in this sector. A link to a list of our sector and cross-sector methodologies can be found in the “Moody's related publications” section.
Source: Moody's Ratings

Scorecard

The scorecard in this methodology is a relatively simple reference tool that can be used in most cases to approximate credit profiles of instruments in this sector, and to explain, in summary form, many of the factors that are generally most important in assigning ratings. The scorecard may not include or address every consideration a rating committee may assess in assigning ratings to instruments in this sector.

Exhibit 3
Subscription credit facilities scorecard

	Weight	Aaa	Aa	A	Baa	Ba	B	Caa
Factor: Limited Partners Pool Profile (60%)[1]								
Limited Partners Pool Profile	60%	See "Discussion of the scorecard factors" section						
Factor: Manager and Fund Profile (40%)[1]								
Manager Scale (Alternative AUM, USD Billion)[2]	10%	Not applicable[3]	≥$400	$150 - $400	$25 - $150	$5 - $25	$2.5 - $5	< $2.5
Manager Market Position and Brand	7.5%	Not applicable[3]	Leading brand recognition with very strong presence in multiple regional markets (e.g., North America, EMEA, Latin America, Asia Pacific); very strong competitive position in most if not all primary private market asset classes (e.g., private equity, real estate, private credit); highly institutionalized firm with limited key person risk; very large, diverse and global LP base, with many LPs invested in three or more of the firm's products	Well-recognized brand with strong presence in multiple regional markets; strong presence in most primary private market asset classes (e.g., private equity, real estate, private credit); institutionalized firm with limited key person risk; large and diverse LP base, with many LPs invested in two or more of the firm's products	Solid brand recognition with strong market presence, typically in one regional market; firm AUM mix may not cover all private market asset classes but a solid presence in those it competes in; institutionalized firm but exposure to some key person risk; moderate size LP base with less geographical diversity; LPs may be invested in more than one of the firm's products	Some brand recognition but operating history may be relatively short; presence is typically limited to one regional market; not particularly strong competitive position in the private market asset classes it competes in; firm AUM concentrated in a single asset class or a few funds; less institutionalized firm and high exposure to key person risk; relatively small LP base and not geographically diverse	Limited track record or weak presence in primary market; firm AUM highly concentrated in a single private market asset class (i.e., private equity) or a small number of funds; significant key person risk; or very small LP base	No track record in primary market; firm AUM focused on a single private market asset class (i.e., private equity) ; or only a very few LPs

	Weight	Aaa	Aa	A	Baa	Ba	B	Caa
Factor: Manager and Fund Profile (40%)[1]								
Manager Investment Performance	7.5%	Not applicable[3]	Consistent top-quartile performance across investment strategies and fund vintages	Consistent above-benchmark performance across investment strategies and fund vintages	Performance across investment strategies and fund vintages typically in line with industry averages	Inconsistent performance across investment strategies and fund vintages with significant underperformance in some recent fund vintages	Performance is consistently in the bottom quartile	Performance is consistently in the bottom quartile with very regular losses
Fund Size (Committed Capital, USD Billion)[4]	7.5%	Not applicable[3]	≥$15	$5 - $15	$2 - $5	$0.5 - $2	$0.25 - $0.5	< $0.25
Fund Investment Strategy	7.5%	Not applicable[3]	Invests exclusively in large and well-developed markets; highly diversified portfolio; investment strategy extremely well-established in the market (e.g., buyouts), attracting significant amounts of new capital commitments annually, and is the manager's main core competency, as demonstrated by a long and very strong track record	Invests principally in large and well-developed markets; well diversified portfolio; investment strategy well-established in the market, attracting high levels of new capital commitments annually, and is a core competency of the manager, as demonstrated by a long and strong track record	Invests primarily in large and developed markets but has flexibility to invest in less-developed markets; investment strategy widely recognized in the market, consistently attracting capital; diversified portfolio but may include larger investments from time to time; the strategy is a core competency of the manager, but experience does not stretch back over several predecessor funds, or the strategy is not the core competency, but the manager has long experience	Employs an opportunistic strategy with flexibility to invest a high percentage of portfolio in less-developed markets, which may result in high variability of investment performance; portfolio likely to be concentrated in terms of the number of investments; strategy is the manager's main focus but track record is short or the strategy is not a core competency of the manager	Employs a highly speculative strategy investing principally in less-developed markets with high likelihood of underperformance; fund expected to have a small number of investments; manager has limited or no prior track record in the strategy	Employs a highly speculative strategy investing solely in less-developed markets with very high likelihood of under-performance; fund expected to have very few investments; manager has limited or no prior track record in the strategy OR manager has no track record
Notching Factor: Structural Considerations								

[1] We weight lower scores for the Manager and Fund Profile factor more heavily than higher scores. As a result, the weight for the Limited Partners Pool Profile factor may be lower than 60%. See the "Scorecard-indicated outcome" section for details.
[2] For the linear scoring scale, the Aa endpoint value is 600. A value of 600 or better equates to a numeric score of 1.5. The Caa endpoint value is 0. A value of 0 or worse equates to a numeric score of 19.5.
[3] Given the nature of private market funds, we do not foresee a scenario where a facility has Aaa characteristics for this subfactor of the Manager and Fund Profile factor.
[4] For the linear scoring scale, the Aa endpoint value is 20. A value of 20 or better equates to a numeric score of 1.5. The Caa endpoint value is 0. A value of 0 or worse equates to a numeric score of 19.5.
Source: Moody's Ratings

Discussion of the scorecard factors

In this section, we explain why each scorecard factor or subfactor is a meaningful credit indicator, and we discuss our analytical approach to scoring each factor or subfactor. When a factor comprises subfactors, we score at the subfactor level. Some factors do not have subfactors, in which case we score at the factor level. The weights shown below are the standard weights; however, there can be overweighting of factors or subfactors, which can change these weights.

In assessing quantitative subfactors, we use information that we calculate or estimate from an issuer's financial statements or regulatory filings, or that we derive from other observations. We may incorporate nonpublic information qualitatively in our assessment.

Our ratings are forward-looking and reflect our expectations for future financial and operating performance. However, historical results are helpful in understanding patterns and trends in an issuer's performance, as well as for peer comparisons. We typically calculate or estimate financial metrics, unless otherwise indicated, based on most recent monthly data. However, we may assess the scorecard factors using various periods. For example, we may find it analytically useful to examine both historical and expected future performance for periods of several years or more.

Quantitative credit metrics may incorporate analytical adjustments that are specific to a particular issuer or instrument.

Because risks related to the LPs' willingness to fund capital upon calls are key considerations in assessing the credit profile of subscription credit facilities, those risks are considered in all three scorecard factors. The Manager and Fund Profile factor score provides important information on the incentives of LPs to honor their capital commitments in order to maintain access to managers. In the Limited Partners Pool Profile factor, the downward notching applied across all LPs' ratings or substitute credit reference points, as well as adjustments for side-letters clauses (see the "Credit quality inputs for LPs" section for details) and the predefined stress scenarios, also aim to capture the incremental risk related to the absence of cross-default clauses in subscription agreements for failure to fund capital commitment. Lastly, some considerations in the Structural Considerations notching factor also address the willingness-to-pay component of the credit risk tied to subscription credit facilities.

For a discussion of scorecard mechanics, see the "Scorecard-indicated outcome" section.

Factor: Limited Partners Pool Profile (60% weight)

Why it matters

The credit quality and diversity of an LP pool serve as important indicators of the credit strength of the investor base and a fund's ability to honor its subscription credit facility obligations, given that private market funds use subscription facilities for a variety of financing needs and typically pay down facility borrowings by calling capital from their LPs. The credit quality of the fund's LPs provides key insight into the fund's ability to call on sufficient capital to repay a subscription facility. The credit strength of the pool also depends on its diversity, particularly the LP and industry concentrations. A more diversified LP pool generally provides greater credit support than a more concentrated one.

Our assessment incorporates the diversity of an LP pool along several dimensions including the number of LPs and the relative size of their capital commitments. It also incorporates the LP type (e.g., public pension fund or sovereign wealth fund), and the domicile of each LP. The advance rate that lenders assign to individual LPs in the pool is another indicator of pool quality because it provides information about the collateralization enhancement (i.e., the fund's ability to withstand a default on the capital call by one or more LPs) and thus the loss absorption cushion for the facility. The advance rate reflects the lender's own assessment of the quality of the individual LPs or LP pool, which is a key determinant of how much credit the lender is willing to extend to the fund relative to the borrowing base.

How we assess it for the scorecard

To quantify the quality of the LP pool used to collateralize the facility, we assess the LPs' credit quality, the size of LP commitments and the diversification profile of the pool. We use a Monte Carlo simulation model called Moody's CDOROM™ to derive the pool's loss distribution and assess the expected loss of the facility.

The key inputs to CDOROM are the credit rating or equivalent and the uncalled capital commitment of each LP, the LP's industry classification and geographic location, the country ceiling,[1] and the Moody's adjusted advance rate.

The key model parameters relevant for our analysis are recovery rates and correlations. We simulate recovery rates using a beta distribution, typically with a mean and standard deviation of 35% and 30%, respectively, for senior unsecured debt. For our correlation framework, we take into account both industry and geography correlations, as well as a global factor correlation, to quantify systemic risk.

Each Monte Carlo scenario simulates defaults and recovery rates to derive loss associated with each LP in the pool, based on the above inputs and model parameters. These losses are summed across LPs to compute a loss at the pool level for a given scenario. We then compare the pool loss to the facility's collateralization enhancement provision (which is calculated based on the individual LP advance rates) to determine the loss to the facility in that particular scenario. We derive a facility size-of-loss probability distribution by looking at facility losses across a large number of scenarios. We use this loss distribution to calculate the expected loss to the facility. Moody's idealized expected loss tables,[2] together with the maturity of the facility, are then used to derive the initial score on the alphanumeric scale for this factor.

Moody's adjusted advance rate

In arriving at the Moody's adjusted advance rate, we first identify the borrowing base amount in the subscription credit facility's documentation or, where there is a coverage ratio, we calculate the borrowing base amount by dividing the uncalled capital commitments from LPs in the pool by the coverage ratio. We then divide the borrowing base amount by the uncalled capital commitments of LPs that meet our criteria for inclusion in the pool when running CDOROM based on our guidelines for the treatment of LPs (see appendix for more information).

We may, typically to a limited extent, lower the Moody's adjusted advance rate based on our qualitative assessment of other relevant considerations, including the percentage of the total commitment called to date, the remaining time to maturity, the net asset value of the fund, documented maximum facility size and other leverage restrictions, and the effective utilization rate of the facility since inception.

Credit quality inputs for LPs

We use the following credit ratings for the different types of LPs: the issuer rating for investment-grade nonfinancial corporates, securities firms, finance companies, pension and asset managers, or the Corporate Family Rating (CFR) for non-investment-grade issuers of these types; the issuer rating for banks, nonprofit organizations and governmental entities; and the senior unsecured rating for insurance companies. In the absence of these credit ratings for an LP, we may use as a substitute either (1) rating equivalents that are derived from other ratings of the LP, (2) credit estimates,[3] (3) sector-based assumptions and sector-based approaches, or (4) a fallback assumption.

For details on our approach to the use of different types of credit quality inputs for LPs and guidelines on their use, see the appendix.

LP capital commitments are legally enforceable contractual obligations. However, they are not debt obligations. If an LP were to default on a capital call, it would not trigger a default of the LP's debt obligations. Therefore, we view an LP's obligation related to a capital commitment to be slightly weaker than its obligation with respect to its senior unsecured debt and we notch down the credit quality inputs by one notch for each LP.

Additionally, because of the risk associated with potential changes in the composition of the LP base, we increase the Moody's adjusted advance rate by 5% (i.e., percentage points). For facilities with a covenanted maximum advance rate or coverage ratio for each LP, we typically do not apply the 5% increase. Similarly, we may not apply the 5% increase for facilities where there are strong protections against substitution risk and changes in the advance rate. Examples of protections against substitution risk and change in advance rate include (1) strict limitations on the addition of lower credit quality LPs, (2) mandatory prepayment events in case of a change to the LP base beyond predefined thresholds, and (3) final or near-final fund close as shown, for example, by total raised commitments that are close to the fund's target size. Other relevant considerations include the percentage threshold of the LP base change and whether the prepayment applies to the full facility principal or to only the drawn part.

We may further notch down the credit quality input of an LP based on the presence of specific clauses in side letters, which may be used to grant certain investors additional rights or privileges that are not provided to other investors in the fund's main subscription or partnership agreement. Some of these clauses can create additional risks to the enforcement of the capital call.

The following are examples of common types of clauses in side letters and a discussion of how we may treat them for the purposes of assessing the LP pool quality in CDOROM.

» **Cease funding rights or withdrawal rights**. Where these rights are present and applicable to calls by the general partner, as opposed to the subscription credit facility lender, we may notch down by up to three notches.

» **Reservation of sovereign immunity**. This clause reserves the right of the government entity to claim sovereign immunity in case of a dispute. In the absence of a waiver of this right, we may notch down up to three notches.

» **Most favored nation (MFN)**. The provision provides the LP benefit from clauses present in any side letters of other LPs in the pool that have an equal or smaller commitments in the fund. We may notch down by several notches the credit rating of an LP that benefits from an MFN clause. The extent of notching would typically reflect the downward notching we apply to the most favored LP(s) based on our review of the provisions of their own side letters. In some cases, we may consider that the benefit the LP may derive from other clauses may not be transferable under an MFN clause, for example, for sovereign immunity.

The above examples are not exhaustive and we would typically consider all material clauses present in side letters and assess whether they add risks to the enforcement of capital calls.

We may notch down by less than indicated above where there are mitigants to the clause or the provision directly affects an LP's obligation to satisfy a capital call or a lender's ability to gain security interest over an LP's uncalled capital commitment. We do not typically apply any downward notching in the presence of a waiver specifically related to the clauses. Some clauses may lead us to consider a reduced funding commitment by an LP, for example, in the case of fluctuating commitments or commitment caps clauses, under which the commitment made by an LP may not exceed a certain level, e.g., a certain percentage of total aggregate capital commitments in the fund. We may also apply a greater downward notching than indicated if there are severe weaknesses related to some clauses.

Maturity selection

We generally use the stated maturity of the credit facility when running CDOROM. However, where there is an extension option that is at the borrower's sole discretion, we use the extended facility maturity. Conversely, we do not take into account an extension option where it requires the lender's approval. We also typically limit the minimum maturity to six months.

Modelling accrued interest

We calculate the average advance rate based on the expectation that subscription credit facilities will have explicit provisions providing that the total principal drawn on the facility, plus accrued interest, cannot exceed the credit line amount and short-time payment requirements for the fund in case the credit line amount is exceeded. Where these provisions are not present in the terms of the facility, we typically include the impact of accrued interest, which has the effect of increasing the average advance rate. For modeling purposes, we assume a six-month accrual and repayment period and use the interest rate specific to the facility.

Treatment of LP investments through special purpose entities (SPEs)

In assigning credit estimates to unrated SPEs that LPs use to invest in a fund, the strength and type of support arrangement with the parent informs our view of any notching differentiation with the rating or substitute of the LP.[4]

Adjustments to the factor score

Typical considerations that may lead to downward adjustments to the initial Limited Partners Pool Profile factor score include the following:

Scenario analysis. Our initial factor score reflects our assessment of the facility's relative credit profile in a forward-looking scenario based on the terms of the facility and the composition of the LP pool acting as collateral. However, we also consider the volatility of a facility's credit profile implied by the results of stress scenarios. Our stress scenario analysis, when combined with the initial factor score, allows us to gauge the relative impact of different levels of stress on the expected loss of the LP pool.

We typically use three predefined scenarios to provide some indication of the degree of resilience of the facility to different scenarios, as Exhibit 4 shows.[5] For these predefined scenarios, we rerun CDOROM and stress three key modeling elements: the LPs' credit ratings, the recovery rate assumption, and the weighted average advance rate. In some situations, we may also employ ad-hoc

scenario analysis that takes into account the specifics of the LP pool and specific terms of the facility. In some cases, for example, an assumption of 100% correlation among LPs, or considering the weighted average pool rating as a proxy, may be a useful scenario for our assessment.

Exhibit 4
Predefined stress scenario

	LP credit rating	Recovery rate*	Moody's adjusted advance rate**
Pre-defined stress scenario #1	-2 notches	-10%	+5%
Pre-defined stress scenario #2	-3 notches	-10%	+5%
Pre-defined stress scenario #3	-2 notches	-10%	+10%

* The values indicated are expressed in percentage points.
** Stresses to the Moody's adjusted advance rate are not cumulative to the 5% increase applied to facilities with a covenanted maximum advance rate or coverage ratio or strong protections against substitution risks, as discussed in the "Credit quality inputs for LPs" section. As a result, we apply an additional 5% increase only to the Moody's adjusted advance rate for those facilities under the predefined stress scenario #3 and no additional increase in the other two predefined stress scenario.
Source: Moody's Ratings

In cases where the predefined stress scenarios indicate that the facility's profile would materially deteriorate (e.g., by the equivalent of two or more notches), we may assign a final factor score lower than the initial score in recognition of the potential downside risk to the facility's credit profile if the stress case were to occur during the life of the facility.

Where an outsized proportion of the LP pool's credit quality inputs are derived using a single sector-based assumption or approach on LPs, we may also run scenario analysis to assess the sensitivity of the CDOROM output by further notching down the sector-based assumption by one notch. In addition, we may also run a stress scenario to assess the sensitivity of the CDOROM output to the exclusion of high-net-worth individuals or family offices that we included in the base case LP pool (for more information, see the "Special considerations for high-net-worth individuals and family offices" section of the appendix).

Factor: Manager and Fund Profile (40% weight)

Why it matters

The size and quality of a fund manager are important in our assessment of a subscription credit facility because larger, more diversified and better performing managers tend to attract and retain more established, higher-quality LPs. Because such managers provide a rich array of investment strategies and opportunities, LPs are more likely to be incentivized to honor their capital commitments in order to maintain access to these managers. The size and investment strategy of the fund to which the subscription credit facility is tied are also key considerations.

Manager Scale

The size of a fund manager's assets under management (AUM) base is an important indicator of the manager's franchise strength, its financial resources, and the quality of its operational infrastructure and risk management controls. Larger-scale managers generally have greater financial flexibility to maintain their operational and client servicing capabilities through more challenging market environments.

Manager Market Position and Brand

Managers with a strong market position and brand typically also have breadth of product offerings and service quality that managers who are less strongly positioned cannot offer their investors.

Investment Performance

Investment performance is also an important determinant of the attractiveness of the manager's products. A history of strong and stable performance is more likely to continue to attract LPs and their capital.

Fund Size

Similarly, the size of the fund to which the subscription credit facility is tied is a key consideration, because larger funds typically indicate greater attractiveness to investors and, as a corollary, greater incentives for LPs to honor capital calls to maintain their investment relationships and potential returns.

Fund Investment Strategy

The investment strategy of the fund to which the subscription credit facility is tied is important because LPs may be more incentivized to honor capital calls if the strategy is in high demand because of its focus and the experience of the fund manager in pursuing that strategy.

How we assess it for the scorecard

We score this factor based on five subfactors: Manager Scale; Manager Market Position and Brand, Manager Investment Performance, Fund Size and Fund Investment Strategy.

Manager Scale

We use the reported private market AUM in billions of US dollars.

Manager Market Position and Brand

We score this subfactor based on our assessment of the fund manager's market position and brand.

Our assessment of a fund manager's brand is typically based on the strength of its franchise and the extent of its presence across regional markets (North America, EMEA, Latin America, Asia Pacific, etc.). We typically assess the strength of a manager's competitive position based on the diversity of private market asset classes in its AUM mix, the extent of institutional development of the entity as illustrated by the depth and experience of its investment teams and the extent of risk tied to key persons in the organization, as well as the size, quality and diversity of the manager's LP base.

Manager Investment Performance

We score this subfactor based on the performance track record of the manager across investment strategies and fund vintages. We typically consider the level of investment return, the performance relative to peers, and the consistency of performance over time. Investment performance that tends to be inconsistent and regularly trails peers typically leads to a lower score in our assessment of this subfactor. Managers with limited or no performance track record will also score lower on this subfactor.

Fund Size

We use the reported total committed capital in billions of US dollars. For funds that have not had their final fundraising close, we typically use the fund's reported target fund size unless we consider the fund unlikely to reach its fundraising target.

Fund Investment Strategy

We score this subfactor based on our assessment of the type of investment strategy pursued by the fund, the fund manager's experience implementing this strategy, and the fund's track record in attracting new capital commitments. Funds with an investment strategy focused on large and well-developed markets that have exhibited lower levels of volatility with highly diversified portfolios typically have higher scores for this subfactor, while narrower and more speculative investment strategies with higher potential for volatility and loss will typically score lower. Where the fund's strategy is a core competency of the fund manager and it has managed several predecessor funds in that strategy, it will typically weigh positively in our assessment of the subfactor. A positive track record in the performance of the fund can also weigh positively in our assessment even if the manager has a limited track record in a similar investment strategy across its other funds. Attraction of significant new capital commitments is also a positive in our assessment.

Notching factors

The scorecard contains a notching factor. Our assessment of the notching factor may result in upward or downward adjustments to the preliminary outcome that results from the weighted factors. We apply this adjustment in whole-notch increments, with a maximum of one alphanumeric notch up from the preliminary outcome to arrive at the scorecard-indicated outcome, and no limit on the notching downward from the preliminary outcome.

In cases where we consider that the credit strength represented by the notching factor is greater than the scorecard range, we incorporate this view into the rating, which may be different from the scorecard-indicated outcome. For a discussion of scorecard mechanics, see the "Scorecard-indicated outcome" section.

Notching factor: Structural Considerations

Why it matters

The structural features and considerations captured by the notching factor can materially affect the credit profile of a subscription credit facility. Weak structural protections, concentrated LP pools, operational or legal uncertainties, and unhedged market risks can all increase the likelihood of loss, while strong collateral or additional payment incentives can enhance credit quality.

How we assess it for the scorecard

Downward notching

The following are examples of the main types of considerations that may lead us to apply downward notching.

» **Limitations on fund borrowings**. Where the fund's partnership agreement places no or little restriction on a fund's ability to incur indebtedness, including through a subscription credit facility, a fund could face the risk of overleveraging, which could materially impact its investment performance and significantly reduce LPs' incentive to fund capital calls.

» **LP substitutions**. Where there are no limitations on LP substitutions, a fund could replace or substitute an LP with LPs of lower credit quality.

» **Limitations of fund manager/lender's rights**. Fund manager or lender restrictions, like overcall provisions or selling a defaulting LP's interest at a discount, may lower LPs' incentive to fulfill capital commitments. Credit agreements in the subscription credit facility market usually offer the lender a first-priority, exclusive security interest in the collateral. We typically expect the security interest to include a lien on capital calls and default language enabling the lender to declare all amounts due and to initiate capital calls. Adequate covenants and representations include the borrower's ability to enter agreements, no current defaults, and no pledges of collateral for other debts without lender approval. If these provisions are absent, we may notch down from the initial outcome. The severity of downward notching depends on the risk introduced by the deviation from the standard. For instance, failure to provide an effective security interest over the collateral or a mechanism to enforce capital calls against the LPs would typically result in more downward notching than would a weaker representation.

» **Unhedged foreign exchange and interest rate risk**. Foreign exchange risk may arise when the fund's commitments from LPs and the credit facility itself involve different currencies and are unhedged. If the terms of the facility do not adequately control for foreign exchange risk, we may apply downward notching. The severity of the notching would depend on the level of foreign exchange risk the facility could be exposed to and the rights the fund manager has within the facility agreement to manage the risk. Similarly, in the absence of effective hedging, we may apply downward notching where the interest payments under the facility are based on a floating interest rate.

» **Outsized LP concentrations**. While the CDOROM model takes LP concentrations into account, LP pool concentration is a key risk that, depending on the makeup of the LP pool, we may also consider in a qualitative way in our notching adjustments. In assigning any downward notching, we would consider the impact of one or more large defaults on expected loss (and probability of default) and the size of the largest commitments relative to the facility's total collateralization enhancement. There would be a significant impact on extremely concentrated LP pools if a large LP defaults on a capital call unexpectedly. Examples of cases where we may notch down by multiple notches from our preliminary outcome include the presence of less than five LPs or if one or two LPs represent an outsized share of the overall LP pool.

» **Operational risk of the fund manager**. Fund managers are exposed to a number of operational risks (e.g., cash management, compliance failures, vendor risks and fraud). A strong operational infrastructure, supported by robust processes, internal controls and corporate governance is an important mitigant to the risk of either operational failures or fraud. Our assessment of the operational risks of the fund manager includes, for example, the quality of its internal policies and procedures and its adherence to them as well as the record of any past and pending regulatory inquiries and material legal actions against the fund manager. We may also consider the governance around the cash or bank account used for LPs' payments, including the credit quality of the cash manager or bank. We may apply downward notching in cases where we consider there to be weaknesses in the fund manager's operational controls and risk governance.

» **Enforceability risks**. The risk that legal contracts or financial instruments might not be enforceable in practice or upheld by the courts varies substantially across jurisdictions, based on a range of considerations. For example, enforceability risks may vary depending on the type of legal system in place (e.g., civil code or common law) and its stability, the extent and consistency of legal precedents relating to financial transactions (in common law jurisdictions), laws protecting creditors, or the efficiency of the legal system (including the time and number of steps required to prove and enforce a claim), among other considerations. Some jurisdictions may also be subject to heightened political risk or weaknesses in the rule of law that may affect the capacity of creditors to exert their rights. We incorporate enforceability issues in our quantitative assessment of the pool as appropriate, but where a significant share of the LP collateral is subject to those risks, we may also apply downward notching.

» **Lender quality**. We typically assess the quality of the lender who originates the subscription credit facility based on its experience in the subscription credit facility market, its track record and underwriting standards, and its credit quality. For example, lenders that rapidly grow their share of a lending market in a short period of time can signal a large appetite for incremental risk, and this rapid growth can easily overwhelm the capacity of their risk management and control processes and systems. If we view the lender's risk appetite, track record or credit quality as presenting the potential for risk management or operational failures that could harm the facility, we may apply downward notching. The lender's financial condition may also give rise to legal issues, such as set-off.

Upward notching

While standardization in facility structures across the industry may limit the potential for upward notching, below are examples of considerations that may lead us to apply upward notching.

» **Asset pledge**. We may apply upward notching if the facility is secured by both a pledge of the LPs' uncalled capital commitments sufficient to repay the facility under all but remote scenarios and by a lien on the fund's underlying investments. To apply the notching, we would also need to have determined that the fund's assets are of sufficient quality and liquidity to offer meaningful additional enhancement to the facility's lenders.

» **Additional LP payment incentives.** LPs may be less likely to default on a capital commitment when some of the fund characteristics or the position of the LPs relative to the fund create some special incentives to honor capital commitments. Where we consider that these incentives are not already captured by the Limited Partners Pool Profile and Manager and Fund Profile factors, we may notch upward. For example, relevant considerations for upward notching include LPs having already funded a large percentage of their initial capital commitments to the fund, typically above 50%, the absolute size of the LPs' commitments, and notable remaining residual value in the fund's investment portfolio.

Other considerations

Ratings may reflect other considerations that are not in a given methodology scorecard, usually because the credit importance of these considerations varies widely among the issuers in that sector or because they may be important only under certain circumstances or for a subset of issuers. Such considerations can include financial controls and the quality of financial reporting; legal structure, the quality and experience of management; assessments of governance, as well as environmental and social considerations; exposure to uncertain licensing regimes; and possible government interference in some countries. Regulatory, litigation, liquidity, technology and reputational risk, as well as changes to consumer and business spending patterns, competitor strategies and macroeconomic trends, can also be considerations that affect ratings.

The following are examples of other considerations that may be reflected in our ratings in this sector and may cause ratings to be different from scorecard-indicated outcomes.

Environmental, social and governance considerations

Where environmental, social and governance (ESG) issues are meaningful for credit profiles, we incorporate them into our ratings analysis in a variety of ways in the application of our sector-specific methodologies. As one part of our overall credit analysis, we consider how ESG risks could affect the qualitative and quantitative factors and subfactors in the scorecard.

Even where ESG considerations do not affect the measures in a sector-specific scorecard or model, or where they cannot be quantified, we incorporate them into our overall analysis of credit drivers that are meaningful to the rating. As a result, we may incorporate these ESG risks qualitatively outside of the scorecard. As part of our rating analysis, we may establish Issuer Profile Scores (IPSs), which indicate our opinion of the extent to which a given issuer is exposed to E, S and G risks (incorporating ESG-specific mitigants) or benefits from its exposure to E, S or G. The IPSs are inputs to credit ratings. For more information, see our methodology that describes our general principles for assessing ESG risks.[6]

Liquidity

Liquidity is an important rating consideration for all issuers, and extremely weak liquidity can heavily affect ratings in many cases. Liquidity can be particularly important where issuers have large short-term demands on liquidity. We form an opinion on likely near-term liquidity requirements from the perspective of both sources and uses of cash.

Regulatory considerations

Issuers in this sector are subject to varying degrees of regulatory oversight. Effects of these regulations may entail limitations on operations, higher costs, and higher potential for technology disruptions and demand substitution. Regional differences in regulation, implementation or enforcement may advantage or disadvantage a particular issuer.

Our view of future regulatory requirements is important because it is the basis for our expectations of future financial metrics and of an issuer's ability to generate sufficient cash flow relative to its debt burden over the medium and longer term.

Financial controls

We rely on the accuracy of audited financial statements to assign and monitor ratings in this sector. The quality of financial statements may be influenced by internal controls, including the proper tone at the top, centralized operations, and consistency in accounting policies and procedures. Auditors' reports on the effectiveness of internal controls, auditors' comments in financial reports and unusual restatements of financial statements or delays in regulatory filings may indicate weaknesses in internal controls.

Additional metrics

The metrics included in the scorecard are those that are generally most important in assigning ratings to subscription credit facilities; however, we may use additional metrics to inform our analysis. These additional metrics may be important in our forward view of metrics in the scorecard or in other rating factors.

For example, the size of an investor's allocation to private markets and the history of its investments are important indicators of an investor's commitment to private market asset classes. Investors with more experience investing in private market funds and with more "skin in the game" in terms of existing capital commitments to private market funds are more likely to make good on capital commitments across a variety of market environments than are investors with little or no track record investing in private markets and who have very little skin in the game relative to their total investable assets.

Event risk

We also recognize the possibility that an unexpected event could cause a sudden and sharp shift in an LP's willingness to fund future capital commitments, which may cause actual ratings to be lower than the scorecard-indicated outcome. Event risks — which vary and can include a significant economic shock, a reputational event at the fund manager, an abrupt shift in investor appetite for a private market asset class, or sudden regulatory changes — can overwhelm even a high-quality LP pool and well-collateralized facility. Some other types of event risks include litigation, significant cybercrime events and geopolitical conflicts.

Fund sponsor support

Sponsor support can provide ratings lift to a subscription credit facility that is tied to a highly rated asset manager if the fund is viewed to be of strategic importance to the fund manager. In our analysis of sponsor support, we consider whether the asset management company has the financial capacity and strategic incentives to provide support to the fund in times of stress or financial need (e.g., a series of LP defaults), including whether it has done so in the past.

Fund managers with limited financial history

Fund managers with limited financial history may initially undergo rapid evolution before developing readily distinguishable and stable operating characteristics. Fund managers are highly confidence-sensitive. A demonstrable track record can be instrumental in building customer and market trust, which creates franchise value and supports the manager's performance during a down cycle.

The franchise value of startup fund managers is usually weak, and most tend to lack product depth, market share, operating experience as an institution (rather than as a collection of individuals) and a record of resilience through a full credit cycle. Their systems, policies and procedures tend to be less robust than those of established fund managers.

For startups that lack a financial history of at least several years and in cases of a material transformation in a fund manager's business, such that its financial history does not provide a good indication of future results (collectively, fund managers with limited financial history), existing financial history provides less insight into the future credit profile. In these cases, our baseline projections, for investment performance, for example, may reflect more conservative expectations than management's projections. To the extent the scorecard does not fully capture these risks and uncertainties, they may be reflected in an assigned subscription credit facility rating that is lower than the scorecard-indicated outcome.

Scorecard-indicated outcome

We arrive at a scorecard-indicated outcome by first mapping the outcome for each factor or subfactor to a numeric score, and then by producing an aggregate numeric score before notching factors (the preliminary outcome). We then apply notching and arrive at the equivalent alphanumeric outcome.

Mapping scorecard factors to a numeric score

We map the outcome of each factor or subfactor in the scorecard to a broad Moody's rating category and to a corresponding numeric score. We score qualitative factors and subfactors based on the description by broad rating category in the scorecard. The following exhibit shows the numeric score that corresponds to each broad rating category.

Exhibit 5

Numeric scores for qualitative factors and subfactors

Aaa	Aa	A	Baa	Ba	B	Caa	Ca
1	3	6	9	12	15	18	20

Source: Moody's Ratings

We score quantitative factors and subfactors on a linear continuum. For each metric, the scorecard shows the range by broad rating category. We use the scale in the following exhibit and linear interpolation to convert the metric, based on its placement within the scorecard range, into a numeric score, which may be a fraction. As an illustrative example, if the Baa range for the ratio of revenue to interest is 50x to 100x, the numeric score for an issuer with a ratio of 99x – relatively strong within this range – would be closer to 7.5, while the numeric score for an issuer with a ratio of 51x – relatively weak within this range – would be closer to 10.5. In the scorecard footnotes, we define the endpoints of the line (i.e., the metric values that equate to the highest possible numeric score and the lowest possible numeric score).

Exhibit 6

Ranges of numeric scores for quantitative factors and subfactors

Aaa	Aa	A	Baa	Ba	B	Caa	Ca
0.5 - 1.5	1.5 - 4.5	4.5 - 7.5	7.5 - 10.5	10.5 - 13.5	13.5 - 16.5	16.5 - 19.5	19.5 - 20.5

Source: Moody's Ratings

Determining the overall scorecard-indicated outcome

We multiply the numeric score for each subfactor (or each factor, when the factor has no subfactors) by the weight of that subfactor (or factor), and sum the results to produce an aggregate numeric score before the notching factor (the preliminary outcome). We then consider whether to notch the preliminary outcome upward or downward. Numerically, a downward notch adds 1 to the aggregate numeric score, and an upward notch subtracts 1 from the aggregate numeric score, to arrive at an aggregate numeric score after the notching factor. In aggregate, the notching factor can result in a total of up to one upward notch and there is no limit on the downward notching from the preliminary outcome to arrive at the scorecard-indicated outcome.

We map the aggregate numeric score back to a scorecard-indicated outcome using the ranges in the following exhibit. For example, an issuer with an aggregate numeric score of 11.7 before the notching factor would have a Ba2 preliminary outcome. If the notching factor totals two upward notches, the aggregate numeric score after the notching factor would be 9.7, which maps to a Baa3 scorecard-indicated outcome.

Exhibit 7
Scorecard-indicated outcome

Aggregate numeric score	Scorecard-indicated outcome
x ≤ 1.5	Aaa
1.5 < x ≤ 2.5	Aa1
2.5 < x ≤ 3.5	Aa2
3.5 < x ≤ 4.5	Aa3
4.5 < x ≤ 5.5	A1
5.5 < x ≤ 6.5	A2
6.5 < x ≤ 7.5	A3
7.5 < x ≤ 8.5	Baa1
8.5 < x ≤ 9.5	Baa2
9.5 < x ≤ 10.5	Baa3
10.5 < x ≤ 11.5	Ba1
11.5 < x ≤ 12.5	Ba2
12.5 < x ≤ 13.5	Ba3
13.5 < x ≤ 14.5	B1
14.5 < x ≤ 15.5	B2
15.5 < x ≤ 16.5	B3
16.5 < x ≤ 17.5	Caa1
17.5 < x ≤ 18.5	Caa2
18.5 < x ≤ 19.5	Caa3
19.5 < x ≤ 20.5	Ca
x > 20.5	C

Source: Moody's Ratings

In general, the scorecard-indicated outcome is oriented to the senior secured facility rating.

Manager and Fund Profile Factor Overweight

We overweight low scores for the Manager and Fund Profile factor in line with our view that credit strength of subscription credit facilities is dependent on weaknesses identified in the manager's profile. For this factor, a further weighting is applied by alphanumeric scoring category. The standard weighting of 40% is multiplied by 1.25, starting at Baa3, to get to the adjusted weighting. The same multiplier of 1.25 is used on the Baa3 adjusted weighting to get to the next lower alphanumeric scoring category (i.e., Ba1). The same approach is applied to get to adjusted weighting down to Caa3. For all other factors and subfactors, the adjusted weighting is equal to the standard weighting.

Assigning issuer-level and instrument-level ratings

After considering the scorecard-indicated outcome, other considerations and relevant cross-sector methodologies, we typically assign a senior secured subscription facility debt rating.

Key rating assumptions

For information about key rating assumptions that apply to methodologies generally, see *Rating Symbols and Definitions*.[7]

Limitations

In the preceding sections, we have discussed the scorecard factors and other considerations that may be important in assigning ratings. In this section, we discuss limitations that pertain to the scorecard and to the overall rating methodology.

Limitations of the scorecard

There are various reasons why scorecard-indicated outcomes may not map closely to assigned ratings.

For example, the scorecard may not fully capture credit loss and recovery considerations, which typically become more important as an issuer gets closer to default. The scorecard is also limited by its upper and lower bounds, causing scorecard-indicated outcomes to be less likely to align with ratings for issuers at the upper and lower ends of the rating scale.

The weights of each scorecard factor and subfactor approximate their importance for rating decisions across the sector, but the importance of a particular factor may vary substantially based on an individual issuer's circumstances.

Factors outside the scorecard, including those discussed in the “Other considerations” section, may be important for ratings, and their relative importance may also vary from issuer to issuer. In addition, certain broad methodological considerations described in one or more cross-sector methodologies may be relevant to ratings in this sector.[8] These considerations include how sovereign credit quality affects nonsovereign issuers, the assessment of credit support from other entities, the relative ranking of different classes of debt and hybrid securities, and the assignment of short-term ratings.

We may use the scorecard over various historical or forward-looking periods. Furthermore, in our ratings we often incorporate directional views of risks and mitigants in a qualitative way.

General limitations of the methodology

This methodology does not include an exhaustive description of all the factors we may consider in assigning ratings in this sector. Issuers in this sector may face new risks or new combinations of risks, and they may develop new strategies to mitigate risk. We seek to incorporate all material credit considerations in our ratings and to take the most forward-looking perspective that visibility into these risks and mitigants permits.

Ratings reflect our expectations for an issuer's future performance; however, as the forward horizon lengthens, uncertainty increases and the utility of precise estimates, as scorecard inputs or in other considerations, typically diminishes. Our forward-looking opinions are based on assumptions that may prove, in hindsight, to have been incorrect. Reasons for this could include unanticipated changes in any of the following: the macroeconomic environment, general financial market conditions, industry competition, disruptive technology, or regulatory and legal actions. In any case, predicting the future is subject to substantial uncertainty.

Appendix: Credit ratings and substitute credit quality inputs for LPs

Hierarchy of credit ratings and substitutes

Where an LP does not have a Moody's issuer rating, senior unsecured rating or CFR, we may use a different input as a substitute when running CDOROM. These substitutes include, by order of use:

1. rating equivalents derived from our ratings of different classes of debt of the same entity;
2. credit estimates (typically for exposures higher than 3% of an LP pool's uncalled capital commitments);
3. specific sector-based assumptions and approaches for LP types;
4. fallback assumptions.

If the LP does not fall into one of these categories as described below, then we do not include capital commitments from these entities as collateral when running CDOROM.

Sector-based assumptions

Specific sector-based assumptions have been built using historical data on Moody's rated issuers or securities, as well as other available data for the corresponding sectors. When applied to a specific LP, the assumptions are capped by the foreign-currency rating of the sovereign where the LP is located.

Insurers

We use an assumption of Ba2 for insurers located in developed markets. For insurers located in emerging markets, we use an assumption corresponding to the lower of B2 and one notch below the foreign-currency rating of the sovereign where the entity is located.

Banks

We use an assumption of Ba3 for banks located in developed markets. For banks located in emerging markets, we use an assumption corresponding to the lower of B3 and one notch below the foreign-currency rating of the sovereign where the entity is located.

Foundations and endowments

We use a global assumption of Ba3 for foundations and endowments tied to private, nonprofit universities, and Ba2 for foundations and endowments tied to public nonprofit universities. For foundations or endowments tied to colleges or universities with a rating or credit estimate, we use an input corresponding to two notches lower than the college or university's rating. For other foundations, we use a global assumption of B1.

Funds of funds

We use an assumption of B1 for funds of funds located in developed markets. For funds of funds located in emerging markets, we use an assumption of B3.

Sector-based approaches

Private pension plans

We use an input corresponding to the rating or credit estimate of the identified single ultimate private pension plan's corporate sponsor, i.e., the entity liable for the pension obligations.

Public pension funds

We use an input corresponding to one notch lower than the rating or credit estimate of the identified single ultimate public pension fund's local government or sovereign sponsor.

Fallback assumption

We use a low, non-investment-grade assumption as an input, typically Caa1, in the absence of information that would suggest using a higher assumption. The fallback assumption cannot exceed B1. We typically do not use this fallback assumption for LP types for which we do not have methodologies to assess credit risk, unless there is specific guidance such as for high-net-worth individual or family office LPs, and we also do not include capital commitments from these entities as collateral when running CDOROM.

Thresholds for use of credit ratings and substitutes

We limit the use of inputs from sector-based assumptions and approaches to individual exposures no higher than 3% of the LP pool's uncalled capital commitments and in aggregate to 40% of an LP pool's uncalled capital commitments.

We limit the use of the fallback assumption to 20% of an LP pool's uncalled capital commitments.

Where the uncalled capital commitments of LPs with credit ratings or credit estimates account for less than 50% of the total uncalled capital commitments in the pool, we typically cap the LP Pool Profile factor score at A1.

For LPs in the pool with no credit ratings, credit estimates or rating equivalents, we typically first use sector-based assumptions and approaches, starting with the LPs that account for the smallest proportion of the pool and adding them until the 40% limit is reached. For LPs with no credit ratings, credit estimates, rating equivalents, or sector-based assumptions or approaches, we use the fallback assumption, starting with the LPs that account for smallest proportion of the pool and adding them until the 20% limit. We may use the fallback assumption for LPs accounting individually for more than 3% of an LP pool's uncalled capital commitments and for which we are unable to obtain a credit estimate, up to the limit of 20% aforementioned, and starting with the LPs that account for the smallest proportion of the pool.

Concentrated pools

For concentrated pools, typically of fewer than 25 LPs, we stress further the inputs corresponding to sector-based assumptions and approaches by one notch down.

Special considerations for high-net-worth individuals and family offices

We may use the fallback assumption (capped at Caa1) for high-net-worth individual or family office LPs under certain circumstances. In particular, when running CDOROM, we may include high-net-worth individuals or family offices LPs in the pool where they invest through investment platforms with brokers typically rated Baa1 or higher, and where there are concentration limits of 1% for each high-net-worth individual or family office LP. Use of the fallback assumption (capped at Caa1) for high-net-worth individuals or family offices is limited to a maximum of 10%, within the 20% aforementioned limit for the fallback assumption.

In determining whether to include these LP types in the pool when running CDOROM, additional relevant considerations supporting the use of the fallback assumption may comprise the amount of liquid assets that the high-net-worth individual or family office holds, the size of its capital commitments in the fund relative to its total liquid assets and the share of its capital commitments housed in brokerage or escrow accounts with mechanisms to ensure swift access to cash to lenders (e.g., a sweep is set up for capital calls).

For example, we may use the fallback assumption for high-net-worth LPs with more than $20 million of liquid assets and with capital commitments representing less than 10% of these liquid assets. For high-net-worth individuals and family offices, we use recovery rates with a mean and standard deviation for subordinated debt of 25%.

Moody's related publications

Credit ratings are primarily determined through the application of sector rating methodologies. Certain broad methodological considerations (described in one or more cross-sector methodologies) may also be relevant to the determination of credit ratings of issuers and instruments. A list of sector and cross-sector methodologies can be found here.

A list of technical white papers can be found here.

Data summarizing the historical robustness and predictive power of credit ratings can be found here.

For more information, please refer to *Rating Symbols and Definitions*, which is available here.

Endnotes

1 For a description of country ceilings, see *Rating Symbols and Definitions*. A link can be found in the "Moody's related publications" section.

2 For more information, see *Rating Symbols and Definitions*. A link can be found in the "Moody's related publications" section.

3 For more information, see our cross-sector methodology that discusses credit estimates. A link to a list of our sector and cross-sector methodologies can be found in the "Moody's related publications" section.

4 For more information, see our cross-sector methodology that discusses guarantees, letters of credit and other forms of credit substitution, and our cross-sector methodology that discusses the assessment of affiliate support in the absence of a guarantee, which provides general principles for considering relationships and rating differential among affiliates. A link to a list of our sector and cross-sector methodologies can be found in the "Moody's related publications" section.

5 See also our cross-sector methodology on the use of credit estimates that discusses stress analysis and haircuts that apply to credit estimates. A link to a list of our sector and cross-sector methodologies can be found in the "Moody's related publications" section.

6 A link to a list of our sector and cross-sector methodologies can be found in the "Moody's related publications" section.

7 A link to *Rating Symbols and Definitions* can be found in the "Moody's related publications" section.

8 A link to a list of our sector and cross-sector methodologies can be found in the "Moody's related publications" section.

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