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# Investment Fund Debt Global Rating Methodology

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## Executive Summary

This document describes how Kroll Bond Rating Agency and its affiliates (collectively, KBRA) evaluate debt and/or other obligations issued by investment funds or secured by investment fund assets. Investment funds are differentiated by strategy, geography, tenor, and ownership structure. This methodology encompasses those differences, and outlines KBRA’s general approach to analyzing the factors that KBRA considers when assigning ratings to investment fund debt transactions. It also describes how KBRA monitors changing risk in these transactions through our surveillance process.

This methodology also addresses debt secured by certain pools or investment vehicles that may share structural features that are similar to investment funds. As appropriate, KBRA’s analysis of investment fund debt may integrate other KBRA rating methodologies to address specific transaction structures, operational features or asset composition. KBRA employs judgment in the application of all our rating methodologies, and therefore may increase or decrease the emphasis on certain factors to address additional or unique risks in a particular debt transaction.

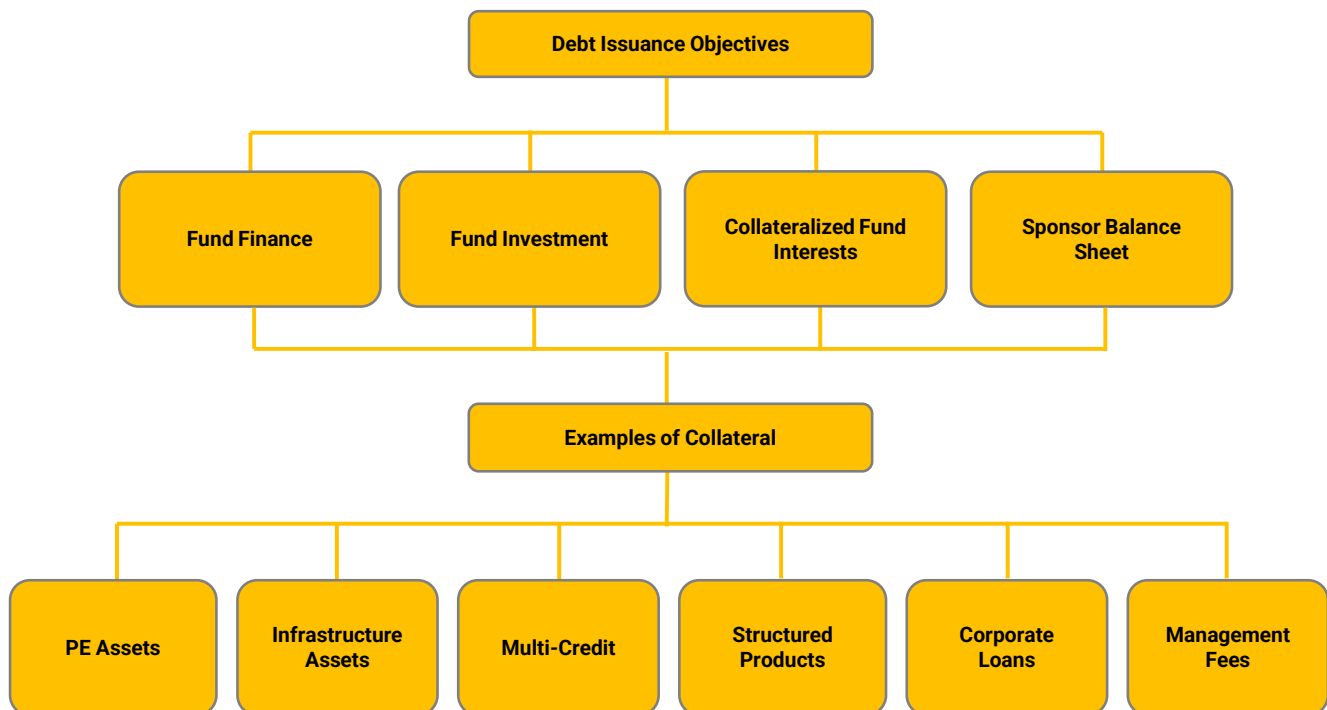


The goal of all KBRA rating methodologies is to produce credit ratings that perform in accordance with KBRA's published rating definitions. For more information about KBRA's rating scale, please see [KBRA's Rating Scale and Definitions](#).

## Investment Fund Overview

Investment funds are a foundational component of the asset management market. These investment vehicles provide a mechanism to pool investor capital for deployment into various asset classes. Most funds are operated by professional managers who are responsible for the allocation of funds in accordance with a pre-specified strategy or mandate. In their simplest form, funds are investment companies managed by a general partnership (GP) which originates/purchases and oversees the portfolio of assets over time in order to generate positive returns for investors. The GP generally earns fees for providing asset management and other services to the fund, which often include both a fixed component and a variable component based on performance. Some funds are closed-end and will issue a fixed number of shares representing a proportional interest in the fund. Other funds are organized as open-end or evergreen funds and will issue and redeem shares on a continuous basis. Investors typically participate in funds as limited partners (LPs).

Investment funds may borrow money, or issue various kinds of debt or debt-like instruments for a variety of purposes. The risks associated with these instruments are distinguished by, among other things, use of proceeds, legal structure, and collateral. Legal structures can take many forms, such as senior secured debt and/or other obligations issued directly by a single investment fund; notes secured by a limited partnership's interests in one or more investment funds; loans secured by an investment fund's assets and limited partners' capital commitments; and various other configurations. Likewise, the purpose of the debt and the collateral securing the debt can vary considerably. The figure below displays some examples:





Analysis of the collateral's ability to generate cash flow to support ongoing debt service requirements is a central feature of KBRA's risk analysis. The purpose of the debt is also an important perspective for our analysis. Despite some overlap, KBRA generally observes that the purpose of investment fund debt fits into one of four broad categories described below, each of which presents distinct risks.

- **Fund Finance:** This category includes notes or loans that provide investment or liquidity financing to an investment fund. These transactions are often rank senior to most of the fund's other obligations, including distributions to LP's. These loans also often have a shorter tenor than the fund, and can often include the ability of the lender to force collateral liquidation or call on investor capital in order to meet interest and/or principal payment obligations. KBRA's analysis of these transactions takes these key strengths into consideration.
- **Fund Investment:** This category typically represents permanent financing for a fund issued through a special purpose vehicle, and often lacks control features that a Fund Finance transaction may have. KBRA's analysis focuses on, among other things, the additional risks that the fund manager's pursuit of returns may place on its ability to meet the debt service obligations in the timeframe and in the amount governed by the transaction documents. KBRA notes that the degree to which a fund manager's interests are aligned with the investors' is a key credit consideration in these transactions.
- **Collateralized Fund Interests:** These are notes collateralized by realizations from a passive portfolio of fund investments. These transactions sometimes include structures where an investor is shifting risk to other investors and/or accelerating expected returns related to prior investment decisions. Alternatively, these transactions can represent highly diversified exposure to high quality cash flow from a large number of fund investments.
- **Sponsor Balance Sheet:** These types of notes are typically issued to provide a fund sponsor with balance sheet capital for general corporate purposes or for additional co-investment in the sponsor's funds. These transactions are often secured by a sponsor's stream of future cash flows such as management fees, performance fees, and/or co-investments. KBRA's analysis will focus on the ability of the pledged cash flow to meet a rated instrument's interest and principal obligations under numerous base and stress case scenarios as well as on the expertise of the investment fund manager and its ability to raise future funds.

In summary, KBRA's analysis and prioritization of risks will consider the transaction's purpose, collateral, and legal structure.

## The Rating Approach

KBRA's rating process assesses the ability of an investment fund to satisfy the rated instrument's interest and principal obligations pursuant to the debt's governing documents and KBRA's rating definitions. The primary determinants in KBRA's rating analysis of investment fund debt are:

### Quantitative Factors

1. Collateral Analysis: Quality, Coverage, Liquidity, Duration
2. Cash Flow Analysis

### Qualitative Factors

1. Investment Manager/Sponsor/Issuer Review/Originator Review
2. Legal Review
3. Other Factors



KBRA generally applies a matrix approach to analyze and aggregate the quantitative factors which leads to a Quantitative Determinant Score (QD Score). Separately, KBRA assesses qualitative factors, including but not limited to, a review of management and other operational aspects of fund administration, legal or structural considerations, use of proceeds, and alignment of sponsor and debt holder interests. These qualitative factors may lead KBRA to adjust the results of the QD score up or down in order to produce a credit rating. These adjustments will generally be one or two notches in either direction. At the outset of the ratings process, KBRA determines the weighting to the various quantitative and qualitative factors to reflect the unique risk profile in each transaction.

In the case of newly formed funds or funds that are not fully invested at the time of the rating, when deemed ratable, KBRA will require the fund manager to provide its investment strategy and/or eligibility criteria. KBRA may also ask for one or more indicative portfolios as proxies for a fully ramped-up fund. In these situations, KBRA's quantitative analysis focuses on the risks embedded in the issuer's investment guidelines, and we will also develop a range of stress tests on selected proxy portfolios. In the qualitative analysis, KBRA will include an emphasis on the manager's ability to deploy capital to achieve a fully invested fund. In addition, KBRA will monitor the portfolio ramp-up subsequent to rating assignment. In doing so we will consider how the existing portfolio compares to the indicative portfolio(s) utilized in our rating assignment process.

## KBRA Quantitative Determinant Score (QD Score)

The QD Score captures KBRA's analysis of two distinct aspects of the rated debt instrument: Collateral and Cash Flow. The QD Score measures the relative ability of the collateral to meet the rated instrument's interest and principal obligations embedded within the transaction.

KBRA's Collateral Analysis encompasses four determinants to assess the pledged assets:

- **Asset Quality:** Inherent risk of the collateral
- **Asset Coverage:** Value of the collateral pool compared to total debt
- **Liquidity:** Relative ability to convert the collateral into cash
- **Duration:** Weighted average life of the collateral

Within the Cash Flow Analysis determinant, KBRA examines the projected quantity and timing of cash flow from the underlying collateral. This analysis evaluates the debt service coverage ratio (DSCR) under a range of stress case scenarios that may incorporate various market, economic, and/or other conditions.

KBRA assigns a score on a scale of 0 to 6 to each of the five quantitative determinants. Based upon the specific characteristics of the rated debt (e.g. nature of the pledged collateral and/or structure), KBRA assigns a weight to each of the five quantitative determinants which then results in a QD Score.

Given the wide range of investment funds, debt purpose, collateral types, and legal structures, KBRA will approach each rating on a case-by-case basis to account for the unique risks relevant to a specific transaction. As described previously, where KBRA concludes that one or more QD determinants are more or less important to assessing risk in a transaction, KBRA may adjust the weights or completely exclude certain determinants.

## Collateral Analysis

### Asset Quality

KBRA generally measures the quality of the existing or indicative portfolio based on a weighted average scoring of the underlying assets and, where applicable, applies KBRA's probability of default (KPD) for each rating category. KBRA's KPD tables are published in [KBRA's Structured Credit Global Rating Methodology](#).



KBRA's assessment of asset quality may incorporate: KBRA ratings; KBRA Credit Assessments (KCAs); KBRA internal credit estimates and assessments (or some other quality assessment for non-debt assets); KBRA modeled losses; publicly available third-party ratings from other NRSROs; an issuer's or sponsor's internal rating/ranking systems; or some combination of these sources. Where needed, KBRA's relevant rating group may provide new KBRA credit estimates or other assessments based on KBRA's rating methodology for the asset class. For example, KBRA project finance analysts will use their industry knowledge and rating methodologies to assign credit estimates to project or infrastructure finance debt instruments or they will assess the value of projected cash flow from project or infrastructure equity interests. For issuer provided internal ratings or rankings, KBRA will assess the issuer's underwriting process relative to KBRA's methodologies and may apply, if warranted, an adjustment to those internal ratings. When the collateral includes a pledge of LP's undrawn committed capital, KBRA's evaluation may incorporate a KBRA credit estimate of the LP's.

Based on the allocation of portfolio holdings across the asset quality scale, when appropriate, KBRA computes an expected cumulative default rate by multiplying the proportion of total exposure at each rating level by the associated default probability. KBRA generally will apply the default year within the KPD table that corresponds to the weighted average tenor of the underlying collateral. KBRA's assessment of asset quality reflects the mapping of the overall default rate for the pool to the KPD table.

Depending on the characteristics of the underlying collateral, KBRA may discount or exclude certain assets from its calculation of Asset Quality Score (or Asset Coverage Score, described below). For example, for some commercial or residential whole loans, KBRA may utilize modeled losses derived from methodologies used to rate commercial or residential securitizations. In addition, when the pledged collateral consists of interests in other funds or when the pledged collateral is subject to valuation changes from other related debt instruments, KBRA may conduct a look through analysis to determine the overall quality of the fund collateral backing the transaction. Further where appropriate, KBRA's analysis of a transaction's asset quality may also incorporate the market value volatility of the underlying assets to achieve a blended Asset Quality Score that reflects both credit quality and market volatility. This may only be utilized if the rated transaction relies on asset sales to fulfill interest and principal obligations. Finally, since the Asset Quality score is ultimately an assessment of the resiliency of the pledged assets to generate future cash flow, defaulted assets are generally excluded. KBRA may incorporate recovery values associated with defaulted assets in the Cash Flow determinant or qualitatively in the QF Score.

The Asset Quality Score ranges from zero (lowest quality) to six (highest quality). For example, a portfolio of AAA rated assets would receive an Asset Quality Score of six. Conversely a portfolio with a weighted average rating of CCC- or lower would receive an Asset Quality Score of zero. For transactions in which the underlying collateral consists of assets that do not have ratable credit characteristics, KBRA will assign a proxy score based on the risk profile of the pledged assets. For example, equity investments will generally receive an Asset Quality Score of '0' to reflect the high-risk characteristics of this asset class.

When KBRA determines that the asset quality determinant is not as directly correlated to the overall rating analysis (e.g. a collateral pool which consists entirely of future management fees), we will lower or eliminate the weight assigned to the Asset Quality determinant and assign higher weights to the Asset Coverage and/or Cash Flow Analysis determinants.

## **Asset Coverage**

The Asset Coverage determinant measures the relative sufficiency of the pledged collateral value to repay the principal amount of the rated debt under base case and stress case scenarios. KBRA calculates Asset Coverage as follows:

Asset Coverage = [Collateral Value]/[Outstanding Principal Amount of Debt]

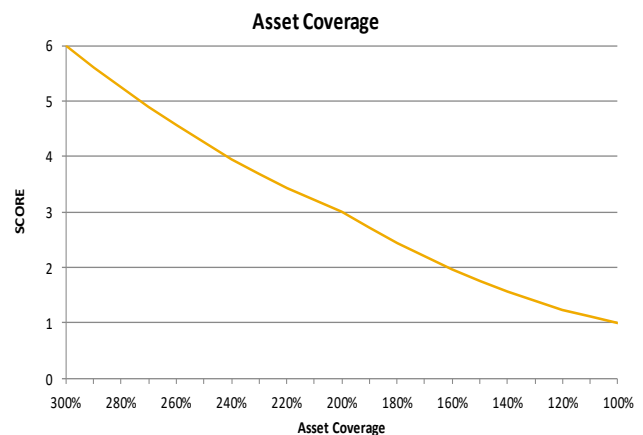


Collateral value is calibrated to capture all of the assets that may be available for debt repayment. For many transactions, collateral value is equivalent to the Net Asset Value (NAV) of the fund which typically includes the gross value of the underlying investment assets (e.g. loans, private equity, etc.) plus any available cash or reserve accounts, less any obligations of the fund that are senior to the debt instrument being rated (e.g. outstanding secured borrowings).

KBRA considers Asset Coverage across time under different performance assumptions and will adjust its projected Asset Coverage parameters based on the underlying collateral and the structural features of the rated debt. For transactions in which pledged collateral includes the capital commitments of the investment fund's LPs, the collateral may incorporate the value of undrawn capital in the calculation of Asset Coverage. For debt instruments backed by a stream of future fees, KBRA will base collateral value on the net present value of projected cash flows utilizing an appropriate discount rate. When determining asset coverage, KBRA will generally focus on time periods where funds are close to full capital deployment but before significant run-off, asset realization, or note paydown, as these are the periods when Asset Coverage levels are typically lowest. For example, for a debt instrument backed by a fund that is still in its investment/capital deployment phase, KBRA will select an Asset Coverage score utilizing projected future Asset Coverage under a range of scenarios. For investment fund debt that relies on asset liquidation for repayment of principal, KBRA will stress collateral values in crucial time periods to assess the transaction's sensitivity to market dislocations.

Where relevant, KBRA will evaluate the investment manager's proficiency in deriving and maintaining accurate asset valuations and will incorporate this assessment in the overall Asset Coverage analysis.

An Asset Coverage score of six is assigned to a transaction with coverage of 300% or greater. A score of one is assigned to an asset coverage of 100%. A score of zero will be assigned when asset coverage is below 100%. Asset Coverage scores between the maximum and minimum are based on a sliding scale as illustrated in the adjacent graph.



## Liquidity

The Liquidity determinant reflects KBRA's assessment of the relative price discount that the underlying collateral may incur if the assets are subject to conversion into cash in order to meet scheduled or accelerated debt service requirements. While the Asset Coverage determinant captures the overall sufficiency of the collateral relative to the rated debt principal, the Liquidity determinant further informs and modifies the degree of debt holder protection implied by the coverage in the transaction, particularly in a stress scenario. The Liquidity determinant considers three factors each individually scored on a scale of zero to two, with two being the most liquid. The three sub-determinants are aggregated to determine the overall Liquidity determinant within the QD matrix. The factors are:

- **Type:** Differentiation of the liquidity profile based on asset characteristics such as security and capital structure. For example, investment grade corporate bonds would receive a higher score than a private equity investment.
- **Complexity:** Differentiation based on the complexity of the structural features of the collateral and associated cash flow which ultimately can influence the sale price. For example, corporate bonds which are relatively less complex to value would receive a higher liquidity score in this sub-determinant compared to a pool of hard assets.
- **Price Discovery/Transparency:** Overall assessment of secondary market conditions for the underlying assets, including historic bid ask spreads, size of buyer pool, and the relative number of observable transactions in the relevant markets.



## Duration

In the Duration determinant, KBRA examines the tenor profile of the pledged assets relative to the rated debt, and the associated vulnerability to changes in asset prices over time. Asset values can be more volatile over time due to a variety of market factors such as changes in interest rates or because of refinancing risks. KBRA generally calculates duration based on the lifecycle of the pledged assets. When an asset lacks a final legal maturity, KBRA will use industry “useful life” standards or other benchmarks to estimate duration. For example, in the case of private equity assets, KBRA will determine Duration based on an analysis of the historical hold period for the manager, the expected life of the relevant fund or projected hold period of the underlying investments. When the pledged assets consist of bond-like fixed income instruments, KBRA may use the weighted average bond duration for this determinant to reflect the collateral’s inherent exposure to changes in interest rates.

## Cash Flow Analysis

When appropriate, KBRA will perform a cash flow analysis in order to test the transaction’s ability to meet its rated interest and principal payment obligations under various economic, financial, and market scenarios. Utilizing historical performance data for the specific pledged asset types and the relevant manager, KBRA begins its cash flow analysis by constructing a base case cash flow scenario. Ideally, the performance data for the manager and/or the strategy KBRA receives will include multiple economic cycles. If an investment manager lacks sufficient historical performance information, KBRA may utilize available market data.

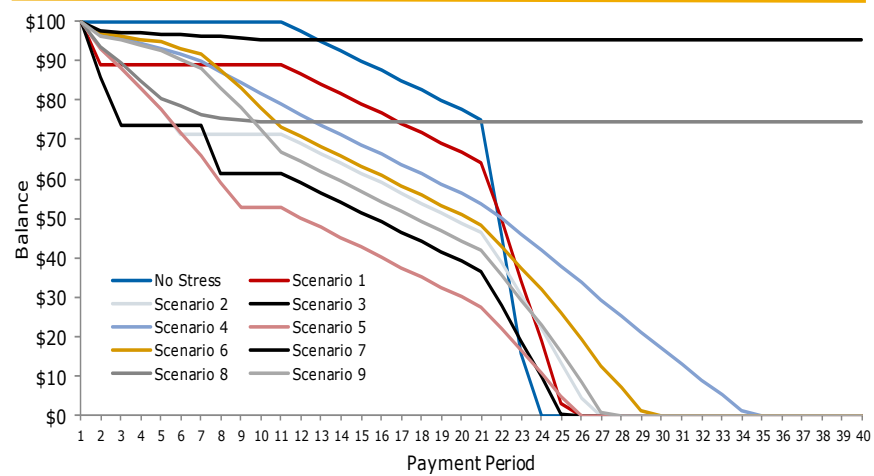
KBRA may also conduct break-even analyses on critical drivers of the transaction cash flows to determine the level of severity the transaction can withstand. For example, KBRA may stress the assumed yields of a particular investment, the timing and amount of projected realizations, and the expected losses or recoveries on asset defaults. KBRA will calibrate its stress sensitivities depending on the asset type, historical performance, and rating level. KBRA may also compare the break-even tests to our base case and the issuer’s base case to determine the degree of additional stress that the rated debt can withstand relative to current expectations.

KBRA’s Cash Flow Analysis determinant may also incorporate stress tests of other factors such as historical sales data, valuations, Internal Rates of Return (IRR), Multiples on Invested Capital (MOIC), realization patterns, exit strategies, and secondary market trends for the assets. KBRA may consider sale timing, strategy, volumes sold, the depth of the market and overall results relative to book values. For private equity assets, KBRA may incorporate historical analysis of the fund manager and the sector to model the cash flow impact of the initial periods of illiquidity associated with private equity funds. When relevant, KBRA will consider other structural transaction features that may mitigate periods of asset illiquidity, such as reserves or borrowing facilities.

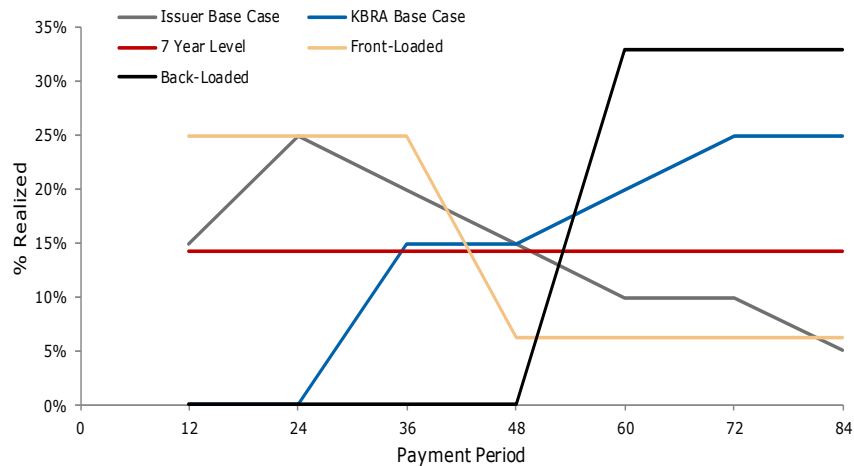
KBRA will customize its cash flow analysis to capture the unique areas of risk for the rated debt. The charts below illustrate two examples of the cash flow analysis KBRA may perform as part of this rating determinant. The first chart shows an analysis of timing of principal repayment. The second chart depicts an analysis of various scenarios conducted on the timing of realizations.



### Example: Note Principal Balance: Scenarios



### Example: KBRA Realization Schedule



KBRA may also employ the KBRA Portfolio Loss Simulation Model to develop a distribution of outcomes under various scenarios that incorporate stress periods associated with specific rating levels. The model employs a copula approach to model correlated defaults, and a Monte-Carlo simulation to generate the portfolio default distribution. In KBRA’s analysis, the projected cash flows must be sufficient to pay the rated instrument’s scheduled interest and principal in stress cases that are consistent with the rating level on the debt.

## QD Rating Result

Each determinant’s score is multiplied by the assigned weight and aggregated to calculate a QD Score which will result in a value between zero to six. The QD Score is mapped to a letter rating. For example, a QD Score of six would result in a rating of ‘AAA’, a QD Score of 3.0 would result in a rating of ‘BBB’, and a QD Score of 1.5 would result in a rating of ‘BB-.’ KBRA then considers qualitative factors (described below) which may result in an adjustment up or down from the credit rating implied solely by the QD Score.

## KBRA Qualitative Factor (QF)

KBRA’s analysis considers a variety of qualitative aspects of the transaction which include: Manager Review, Legal Review, and Other Factors. KBRA will consider the ability of the manager, legal documents, and non-quantitative factors to inform its view of whether the transaction is likely to perform at, above, or below the rating level determined from QD Score.



## Manager Review

As part of the Qualitative Factor (QF) KBRA performs an analysis of the investment manager. The manager generally plays a role in the origination and ongoing management or servicing of the pledged collateral over the life of the rated transaction. However, when the role is more passive, KBRA will typically place less emphasis on this factor. The assessment of the manager considers factors such as but not limited to: Management Structure and Ownership, Fund Investment Guidelines and Policies, Credit Process, and Risk Management and Compliance.

The assessment of the manager may result in a higher or lower overall credit rating than would otherwise be determined from the QD score alone. Among the topics considered include:

### Management Structure and Ownership

- **Organizational Form:** Size and breadth of business, personnel, and resource alignment relative to the investment mandate, as well as the manager's competitive position.
- **Management Structure:** Reporting lines/separation of duties, oversight, and back-office functions, including, but not limited to, accounting, reporting, and sales and marketing.
- **Investment Team:** Experience in the strategy or asset class including, but not limited to, staffing adequacy and any key-person risk.

### Fund Investment Guidelines and Policies

- **Investment Guidelines:** Documentation, associated level of detail, and implementation of guidelines including, but not limited to, clarity on eligible asset definitions, explicit concentration limits, and use of leverage.
- **Investment Process:** Investment committee processes including, but not limited to, degree of formality, completeness, flexibility, and track record of responses to market fluctuations.
- **Technology:** Trading and portfolio management systems including, but not limited to, stability, scalability, and customization for the specific manager.

### Credit Process

- **Organizational Structure:** Credit or investment selection team's role and degree of separation relative to the portfolio management team as well as the presence of clearly defined responsibilities and accountability.
- **Policies and Procedures:** Documentation, level of detail and implementation of credit and investment policies and procedures, including process for periodic updates.
- **Analysis:** Detail and scope of initial underwriting and on-going servicing of fund assets, including work out practices.
- **Technology and Systems:** Systems and models which support credit analysis including accessibility and secure storage of the files.
- **Portfolio Monitoring:** On-going portfolio management including, but not limited to, portfolio criteria compliance, third party audits, and back testing of asset valuations.

### Risk Management and Compliance

- **Policy:** Documentation, level of detail and implementation of risk management and compliance policies.
- **Organization:** Risk management and compliance teams' experience and staffing adequacy.
- **Technology:** Systems for monitoring, tracking and reporting, including scalability and customization for the specific manager.

Other areas of review may include, but are not limited to: workout experience and ability to manage asset defaults, pre- and post-trade compliance, trade ticket verification, pricing/valuation policies and procedures, and redemption risk.



KBRA's review may also consider the strength and stability of the Manager's historical performance. The Manager's performance may be evaluated in the context of the performance track record and volatility of the Manager's asset class.

In some circumstances such as Fund Finance, KBRA may focus its manager review on the originator of the debt instrument and their investment process as opposed to the manager of the underlying fund.

## Legal Review

KBRA will review the transaction documents and legal opinions associated with a debt financing and assess transaction mechanics and relevant structural features. KBRA generally takes a holistic approach that balances the investment fund's need for operational flexibility with the specific credit risks within a particular transaction structure.

Depending on transaction type, typical legal and structural considerations assessed by KBRA may include:

- Bankruptcy remoteness for transactions where the obligor group must be sufficiently de-linked from the credit of the parent;
- The extent to which relevant financial metrics and triggers (e.g., debt service coverage ratio or net asset valuations) help to decrease leverage or preserve collateral value;
- Creditors' rights in respect of any collateral, including legal remedies and priority of claim of creditors in a default scenario and how they impact recovery on the collateral;
- Affirmative and negative covenants, including those relating to equity distributions, limitations on additional indebtedness, negative pledges, operational and investment parameters, disposal and preservation of obligor assets, and contribution of additional assets;
- Segregated account structures; and
- The legal rights, obligations and claims in respect of the cash flows servicing the debt.

For transactions with structural features that are robust and actively mitigate identified credit risks, KBRA may adjust the rating upwards. Conversely, for transactions with structural features that magnify identified credit risks (e.g., debt subordination), KBRA may adjust the rating downwards.

## Other Qualitative Factors

KBRA will also take into consideration other factors that may capture credit positive or negative factors that may not be captured through the above process such as use of proceeds, alignment of interests between sponsor and debt holders, asset concentration and other structural features of the debt. Additionally, KBRA will compare the characteristics of the transaction to recent similar transactions KBRA has analyzed. If the transaction being reviewed has a higher result but is deemed to be of equivalent or weaker quality relative to others an adjustment to the analysis may be made. KBRA may also consider the transaction's exposure to key counterparties, including but not limited to liquidity facility providers, swap counterparties, or asset managers. KBRA may notch the transaction downward or upward to the extent there is a direct linkage between the credit quality of these counterparties and the credit risk to the transaction.

## External Considerations

KBRA may also evaluate an issuer's susceptibility to transfer and convertibility risk with respect to the jurisdiction governing the underlying collateral. This is the risk that the government would interfere with external payments of other economic agents in an economy. KBRA's assessment of this risk generally reflects the legal commitment of a country to the free movement of capital, the institutional strength of a country, and the likely cost-benefit calculation the government would conduct in deciding whether or not to impose exchange controls on the economy. In this context, the ratings incorporate an assessment of the credit quality of the host jurisdiction to reflect both the issuer's vulnerability to macroeconomic conditions as well as transfer and convertibility risk, the result of which may be applied in the Cash Flow Analysis determinant by increasing the base case stresses for assets in certain jurisdictions.



## Surveillance

KBRA maintains active surveillance on all investment fund debt ratings for the life of each transaction or until ratings are withdrawn. KBRA will rely on investment fund managers or administrators to provide information necessary to conduct on-going and annual surveillance. KBRA may also supplement our analysis with publicly available sources or alternative means of verifying relevant information.

On an ongoing basis, KBRA will review portfolio holdings and performance data, as well as other operational and investment details KBRA deems important to monitor risks and KBRA's ratings. In addition, KBRA monitors timely payments, news media, and post issuance events. If we determine that a rating change may be warranted, we may perform a more in-depth review at any time.

Absent ratings changes resulting from the monitoring process, KBRA performs an annual review. The review utilizes the most recent information available from the fund manager as well as meetings with the manager, when deemed appropriate, to update any relevant quantitative and qualitative factors that support KBRA's ratings. An abridged version of the full transaction review may be conducted for transactions that have not had significant change in the individual assets, asset performance, or change to strategy.

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