OCTOBER 14, 2020 MANAGED INVESTMENTS



# METHODOLOGY (OTHER PERMISSIBLE SERVICE)

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# **Bond Funds Methodology**

This methodology updates and replaces the *Moody's Bond Fund Rating Methodology* published in May 2013. In this update, we clarify the qualitative adjustments that may cause bond fund ratings to be different from the quantitatively derived credit matrix outcome. Additionally, we provide information about how we arrive at bond fund national scale ratings based on bond fund global scale ratings. This update also clarifies the circumstances under which we may use this methodology to assign bond fund ratings to certain closed-end funds. This update also further clarifies the mapping between obligations and the reference points we use as inputs into the credit matrix. It also provides more details about the mechanics of the credit matrix and the treatment of unrated fund investments.

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NEW YORK +1.212.553.1653

APPENDIX B: CLOSED-END FUNDS

MOODY'S RELATED PUBLICATIONS

Robert Callagy +1.212.553.4374

Associate Managing Director

robert.callagy@moodys.com

**Analyst Contacts:** 

Marc Pinto +1.212.553.4352

Managing Director – Financial Institutions

marc.pinto@moodys.com

MEXICO CITY +52.55.1253.5700

Jose Montano +52.55.1253.5713 Vice President – Senior Credit Officer jose.montano@moodys.com

PARIS +33.1.7070.2229

Vanessa Robert +33.1.5330.1023 Vice President - Senior Credit Officer vanessa.robert@moodys.com

## Introduction

In this methodology, we explain our general approach to assessing the maturity-adjusted credit quality of investments within bond funds, including the qualitative and quantitative factors that are likely to affect bond fund ratings. Bond fund ratings are not credit ratings.

We discuss the credit matrix we use for bond funds. The credit matrix is a relatively simple reference tool that can be used in most cases to approximate the maturity-adjusted credit quality of a bond fund's portfolio of investments. We may use historical or forward-looking data or both as inputs to the credit matrix.

We also discuss other considerations, which are factors that are assessed outside the credit matrix, usually because the factor's credit importance varies widely among bond funds or because the factor may be important only under certain circumstances or for a subset of bond funds.

In addition, some of the methodological considerations described in one or more cross-sector rating methodologies may be relevant to bond fund ratings.<sup>2</sup> As a result, the credit matrix outcome is not expected to match the actual bond fund rating for each bond fund.

A bond fund rating is not a credit rating; it is an Other Permissible Service. For more information about bond fund ratings, see *Rating Symbols and Definitions*. A link to this publication can be found in the "Moody's Related Publications" section.

A link to a list of our sector and cross-sector methodologies can be found in the "Moody's Related Publications" section

Our presentation of this methodology proceeds with (i) the bond fund rating definition and scale; (ii) the scope of this methodology, (iii) a discussion of the credit matrix and our general approach to rating bond funds; (iv) other considerations not reflected in the credit matrix; (v) the assignment of global scale and national scale bond fund ratings; (vi) methodology assumptions; and (vii) limitations.

# **Bond Fund Rating Definition and Scale**

Please see *Rating Symbols and Definitions* for information about bond fund ratings.<sup>3</sup> We append a "bf" modifier to the broad rating categories (Aaa, Aa, A, Baa, Ba, B, Caa, Ca and C, also called alpha categories) to differentiate bond fund ratings from our credit ratings for long-term obligations, which are assigned on our global long-term alphanumeric rating scale.

EXHIBIT	1		
Bond	Fund	Rating	Scale

Rating	Definition
Aaa-bf	Bond funds rated Aaa-bf generally hold assets judged to be of the highest credit quality.
Aa-bf	Bond funds rated Aa-bf generally hold assets judged to be of high credit quality.
A-bf	Bond funds rated A-bf generally hold assets considered upper-medium credit quality.
Baa-bf	Bond funds rated Baa-bf generally hold assets considered medium credit quality.
Ba-bf	Bond funds rated Ba-bf generally hold assets judged to have speculative elements.
B-bf	Bond funds rated B-bf generally hold assets considered to be speculative.
Caa-bf	Bond funds rated Caa-bf generally hold assets judged to be of poor standing.
Ca-bf	Bond funds rated Ca-bf generally hold assets that are highly speculative and that are likely in, or very near, default, with some prospect of recovery of principal and interest.
C-bf	Bond funds rated C-bf generally hold assets that are in default, with little prospect for recovery of principal or interest.

Source: Moody's Investors Service

# Scope of This Methodology

This methodology applies to bond funds, which are also called fixed-income funds, globally. Bond funds include many types of fixed-income funds, such as bond mutual funds, exchange-traded funds and local government investment pools (LGIPs).

The application of the methodology is limited to bond funds that hold bonds, loans and other investments<sup>4</sup> that can be rated under an existing Moody's methodology and for which we have sufficient information to form an opinion regarding their credit quality. These funds may also hold cash, repurchase agreements (repos) and derivatives.

This methodology may be used to assign bond fund ratings to closed-end funds (CEFs) that are issued with specific fixed-income investment objectives, that have only one class of shares and that are restricted in their capacity to incur debt (a full restriction or strict limitation to instruments, such as repurchase agreements or loans provided under government-sponsored programs where the only

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the ratings tab on the issuer/entity page on <a href="https://www.moodys.com">www.moodys.com</a> for the most updated credit rating action information and rating history.

<sup>&</sup>lt;sup>3</sup> A link to this publication can be found in the "Moody's Related Publications" section.

<sup>&</sup>lt;sup>4</sup> Including trade receivables due from rated obligors or insured by rated insurance companies

recourse is to the individual financed asset, e.g., the Term Asset-backed Securities Loan Facility in the US).<sup>5</sup>

# Discussion of the Credit Matrix and Our General Approach to Rating Bond Funds

# **Portfolio Credit Quality**

In assessing portfolio credit quality, we use a credit matrix, which is a tool that attributes a specified amount of loss to each security in the portfolio based on the following:

- » The par value of the security.
- The expected loss<sup>6</sup> associated with the security's long-term rating or long-term reference point<sup>7</sup> and its maturity, using our long-term idealized cumulative expected loss rates table.

For an instrument with a maturity of less than 12 months, we assume in the credit matrix that the fund reinvests the proceeds in a security that would mature at the same 12-month horizon. For instruments with maturities of more than 12 months we use the expected loss associated with the instrument's maturity. For structured instruments such as Asset-Backed Securities and Mortgage-Backed Securities, we use the weighted average life (WAL) as the input for the security's maturity in lieu of the stated final maturity. For securities with maturity shortening provisions (i.e., unconditional, irrevocable put options at par), we use the put date as the maturity input for the security in the credit matrix. For some types of investments where there is no stated maturity (e.g., where the bond fund holds shares in another fund), we may use a look-through approach to assess or estimate the WAL and the credit quality of the investments held by the fund.

Exhibit 2 shows schematically how, for the purpose of assessing a portfolio's credit profile, the expected loss associated with a given security's rating is adjusted for its maturity. For example, a Aa3-rated security with a 90-day remaining maturity is estimated to represent a similar amount of expected loss as that of a Aa1-rated security with a one-year remaining maturity.

See Appendix B for a description of certain closed-end funds that are within the scope of this methodology.

<sup>&</sup>lt;sup>6</sup> The idealized cumulative expected loss table is used in implementing the credit matrix. See *Rating Symbols and Definitions* for a link to a table of idealized cumulative expected loss rates. A link to this publication can be found in the "Moody's Related Publications" section.

See Appendix A.

<sup>&</sup>lt;sup>8</sup> For example, for a security with a maturity in six months (i.e. 180 days), the calculation is 360 days divided by 180 days (i.e., two) multiplied by the expected loss associated with a six-month security (using quadratic interpolation).

We use the portfolio's WAL as the benchmark for estimating its expected loss. We select a benchmark that is closest to the fund's WAL, but not less than its WAL. For funds with WALs of 14 months or less, the benchmark selected to evaluate the fund's credit quality is a benchmark in half-month increments. Beyond 14 months, the benchmarks are in increments of one month. Beyond five years, the benchmark are in increments of six months.

EXHIBIT 2 Illustrative Table for Assessing the Portfolio Credit Profile 10

Security Maturity (Days)	Aaa	Aa1	Aa2	Aa3	A1	A2
30	Aaa	Aaa	Aaa	Aa1	Aa1	Aa2
60	Aaa	Aaa	Aaa	Aa1	Aa2	Aa2
90	Aaa	Aaa	Aa1	Aa1	Aa2	Aa3
120	Aaa	Aaa	Aa1	Aa2	Aa2	Aa3
180	Aaa	Aaa	Aa1	Aa2	Aa3	A1
1 Year	Aaa	Aa1	Aa2	Aa3	A1	A2

Note: The table is based on our credit matrix. It assumes that each asset with a maturity of less than 12 months will be reinvested in instruments with the same rating and be rolled to the 12-month point. We derive interim expected loss below one year (e.g., three months) by using quadratic interpolation. Assets maturing beyond 12 months are assessed at their respective maturities. We use linear interpolation beyond one year to derive non-yearly expected loss (e.g., 1.6 years).

Source: Moody's Investors Service

The expected loss for each investment is aggregated to arrive at the portfolio weighted average expected loss. We compare the portfolio weighted average expected loss with expected losses corresponding to the different alphanumeric ratings. The credit matrix outcome corresponds to the alpha rating category (Aaa, Aa, A, Baa, Ba, B, Caa, Ca, C) of the best alphanumeric for which the portfolio weighted average expected loss is less than the expected loss associated with this same alphanumeric.

#### **Credit Matrix: Reference Points and Treatment of Unrated Investments**

We principally use long-term senior unsecured ratings as long-term reference point inputs in the credit matrix for assets held by bond funds. However, bond funds may also hold a variety of other assets for which there is no associated long-term senior unsecured rating or for which we may consider that the senior unsecured rating is not representative of the underlying maturity-adjusted credit risk. In Appendix A, we discuss some of the investments that bond funds may have exposure to and the respective long-term-rating reference points we use for the purpose of the credit matrix.

In some cases, we may adjust the credit matrix inputs. For credit ratings under review for downgrade, we typically apply one downward notch.

#### Unrated Investments

Assets that we do not rate are typically assessed based on other sources of information and through the use of other analytic techniques. In the absence of a Moody's rating, we may use credit equivalents that are inputs from model-based tools, such as Moody's Analytics CreditEdge or Moody's Analytics RiskCalc, or we may use credit estimates<sup>11</sup> (we refer to these collectively as designated credit equivalents).

If no rating or designated credit equivalent input is available, we use an credit matrix input assumption of the lower of (i) Caa1, in cases where the investment is performing; (ii) Ca in cases where the

<sup>&</sup>lt;sup>10</sup> This table illustrates schematically some of the outcomes of the credit matrix based on portfolios of different credit quality and maturity. The table is not a comprehensive representation of all the possible combinations of portfolio credit qualities and maturities as well as resulting outcomes under the credit matrix.

For more information, see our cross-sector methodology that describes our use of credit estimates. For clarity, we do not apply the two-notch haircut or the jump-to-Caa2 test for credit estimates used in analyzing bond funds. A link to a list of our sector and cross-sector methodologies can be found in the "Moody's Related Publications" section.

investment is non-performing; (i.e., there are delayed or missed debt service payments beyond any applicable grace period) and (iii) the sovereign rating of the domicile of the investments.

The use of these assumptions subject to certain limitations, is as follows:

- » In cases where the investments are domiciled in a country rated B3 or higher, the aggregate use of these credit matrix input assumptions is generally limited to 20% of a fund's total investments under management. If the use of these rating input assumptions over two consecutive months is higher than 20%, to maintain the bond fund rating we would obtain additional designated credit equivalents to lower the ratio for those months to no more than 20%.
- For all bond funds that hold unrated investments that do not have designated credit equivalents, we compare the (i) credit matrix outcome using the fund's total portfolio of investments; and (ii) the credit matrix outcome for the same portfolio excluding investments for which we use a rating input assumption. If the respective credit matrix outcomes correspond to different alpha categories over two consecutive months, to maintain the bond fund rating we would obtain sufficient additional designated credit equivalents such that the respective credit matrix outcomes correspond to the same broad alpha category.
- » Where a bond fund holds an unrated investment (a single exposure) that is more than 5% of its total investments under management over two consecutive months, to maintain the bond fund rating we would obtain a rating or a designated credit equivalent for that investment.

#### **Other Considerations**

Bond fund ratings may include factors that are not in the credit matrix, usually because the factor's credit importance varies widely among bond funds or because the factor may be important only under certain circumstances or for a subset of bond funds. Such factors include assessments of fund governance; the frequency and quality of financial reporting, and the management and strategy of the fund manager or sponsor.

Following are some examples of additional considerations that may be reflected in bond fund ratings and that may cause bond fund ratings to be different from credit matrix outcomes.

#### Other Benchmarks for Portfolio Credit Quality

In some cases, the credit matrix outcome may differ significantly from our opinion of the credit quality of the fund's portfolio, particularly when there is a wide difference between the portfolio WAL and the duration benchmark<sup>12</sup> used to assess the maturity-adjusted credit quality of the portfolio. In these cases, we may use the weighted average rating factor (WARF)<sup>13</sup> of the portfolio as a proxy for the fund's credit quality, which may result in the assignment of a bond fund rating that is different from the credit matrix outcome.

## Trends and Expectations for Future Changes in the Portfolio

Since bond funds are actively managed, longer-term trends in credit matrix outcomes may have a greater bearing on our assessment of long-term credit quality than short-term trends. For example, we

The duration benchmarks used to assess the maturity-adjusted credit quality of the portfolio are in increments. As a result, the duration benchmark used may in some cases (especially for very short durations) be different from the calculated WAL of the portfolio and thus the credit matrix outcome may to some extent be different from the actual maturity-adjusted credit quality of the portfolio.

A rating factor represents the idealized cumulative expected default rate for the relevant rating at a 10-year horizon, multiplied by 10,000 (e.g., for Aaa, the rating factor is equal to 1.00, which is 0.0001 (the 10-year idealized cumulative expected default rate) \* 10,000). The WARF is the par-weighted average of the rating factor of each of the investments in the fund's portfolio.

typically would not change our view of the credit quality of a bond fund's portfolio based on one-off, opportunistic changes in its composition that may temporarily drive up or down credit matrix outcomes. Our expectations for future changes to the investment portfolio may also be based on our assessment of the flexibility afforded to a fund by its investment prospectus.

#### Governance Issues

Governance considerations may affect bond fund ratings. For information about our approach to assessing governance issues, please see our methodology that describes our general principles for assessing environmental, social and governance risks.<sup>14</sup>

Fund governance includes the management of financial assets under the terms of a contract. Serious deficiencies in fund governance, if not mitigated by other considerations, may have a negative impact on bond fund ratings. Among the areas of focus of fund governance are board composition and the adequacy of information available to directors.

Board composition is a critical element of fund governance. In our view, a strong board includes a meaningful number, preferably a majority, of independent directors. Independent directors led by an independent chair or lead director can provide objective oversight of a fund for the benefit of shareholders. Conversely, a lack of independent board members may be a negative factor for the credit quality of the fund's assets.

We also may consider the adequacy of information available to directors. Without adequate information, fund boards cannot discharge their duties effectively.

## Frequency and Quality of Financial Reporting

We rely on the accuracy and frequency of a bond fund's financial statements, in particular its portfolio data, to assign and monitor bond fund ratings. The quality of financial statements and portfolio data may be influenced by internal controls, including the proper tone at the top, centralized operations, and consistency in accounting policies and procedures. The absence of audited statements or auditors' comments in financial reports and unusual restatements of financial statements or delays in regulatory filings may indicate weaknesses in internal controls.

#### Management and Strategy of Fund Manager or Sponsor

In addition to the implied credit profile of the portfolio, the portfolio's underlying asset composition indicates whether the fund continues to adhere to its stated strategy and guidelines. In the case of a material and persistent deviation from the fund's strategy or guidelines, the bond fund rating may be lower than the credit matrix outcome.

Since the fund's assets are legally segregated from the assets of the fund sponsor or manager, the financial condition of the fund sponsor or manager generally has no influence on the credit quality of the fund's assets. However, in some cases, the bond fund rating may be influenced by severe weakness of the fund manager or fund sponsor that results in a deterioration of fund management, staff or overall credit quality.

<sup>&</sup>lt;sup>14</sup> A link to a list of our sector and cross-sector methodologies can be found in the "Moody's Related Publications" section.

#### Trade Receivable Assets

In our analysis of funds that hold material concentrations of trade receivables or receivable backed notes, we may assign a rating lower than the credit matrix outcome would indicate, to reflect uncertainty in timing of payments.

## Limited or No Operating History

In certain circumstances, we may assign fund ratings to funds prior to their launch and initial funding, or to funds with short track records. In these cases, we may adjust the credit matrix outcome down by one bond fund rating level to reflect the degree of uncertainty about the capacity of the fund to execute its investment model or sustain its portfolio composition.

Our analysis typically focuses on the manager's experience and track record for managing bond funds with similar strategies as well as the investment guidelines outlined in the funds' prospectuses.

In cases where we assign a rating to an unfunded bond fund based on a pro forma portfolio, we assess the actual portfolio composition after its launch to confirm that it is materially consistent with the pro forma portfolio. If there is a material difference, we may upgrade or downgrade the bond fund rating to reflect the actual credit quality of the portfolio.

# **Assigning Global Scale and National Scale Bond Fund Ratings**

After considering the credit matrix outcome, other considerations and relevant cross-sector methodologies, we typically assign a global scale bond fund rating. We may also assign a national scale bond fund rating.

#### Mapping to the National Scale Rating

In assigning bond fund national scale ratings, we use the national scale rating (NSR) map for the given country as a starting point. <sup>15</sup> These maps are published on moodys.com.

We first select an alphanumeric within the alpha category corresponding to the assigned bond fund rating on the global scale rating (GSR). The selection of the alphanumeric is informed by the credit matrix outcome, the considerations discussed in the Other Considerations section and peer comparison. We then use the country-specific NSR table, which maps the alphanumeric on the global scale to one or more alphanumerics on the national scale. If there is more than one NSR category available for a given global scale alphanumeric, the positioning of the national scale bond fund rating is informed by peer comparison and the same analytical considerations used to assess the bond fund rating on the global scale.

## **Assumptions**

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.

For more information about national scale ratings, see *Rating Symbols and Definitions* and our methodology that describes our general approach for mapping national scale ratings from global scale ratings. Links to these publications can be found in the "Moody's Related Publications" section.

#### Limitations

In the preceding sections, we have discussed the credit matrix and many of the other considerations that may be important in assigning bond fund ratings, and certain key assumptions. In this section, we discuss limitations that pertain to the credit matrix and to the overall rating methodology.

#### **Limitations of the Credit Matrix**

There are various reasons why credit matrix outcomes may not map closely to actual bond fund ratings.

The credit matrix in this rating methodology is a relatively simple tool focused on indicators for relative weighted average credit quality of investments held by a bond fund, adjusted for maturity.

Factors that are outside the credit matrix, including those discussed above in the "Other Considerations" section, may be important for ratings, and their relative importance may also vary from fund to fund. In addition, certain broad methodological considerations described in one or more cross-sector rating methodologies may be relevant to bond fund ratings. <sup>16</sup> Examples of such considerations include the following: how sovereign credit quality affects non-sovereign 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.

# **General Limitations of the Methodology**

This methodology document does not include an exhaustive description of all factors that we may consider in assigning bond fund ratings. The investment holdings of funds in the sector may be subject to new risks or new combinations of risks, and bond funds may develop new strategies to mitigate risk. We seek to incorporate all material credit considerations in bond fund ratings and to take the most forward-looking perspective that visibility into these risks and mitigants permits.

Bond fund ratings may incorporate expectations for future changes in the portfolio composition (see the "Other Considerations" section). In some cases, our expectations for future composition may be informed by confidential information that we cannot disclose. In other cases, we estimate future composition based on past management actions, trends across the peer group or other considerations. In any case, predicting the future is subject to substantial uncertainty.

<sup>&</sup>lt;sup>16</sup> A link to a list of our sector and cross-sector methodologies can be found in the "Moody's Related Publications" section.

# **Appendix A: Inputs in the Credit Matrix**

For several types of financial obligations, we use a proxy rating as a reference point in the credit matrix. The following table shows the typical mapping between these different types of financial obligations and the long-term-rating reference points used in the credit matrix.

Investment Type	Reference Point	Comments
Cash and Cash Equivalents (e.g., uninvested cash, checking accounts and sight accounts)	Long-Term Deposit Rating	
Time Deposits and Certificates of Deposit	Long-Term Deposit Rating	
Commercial Paper	Senior Unsecured Rating	Where long-term ratings are not available, P-1 maps to A2, P-2 maps to Baa2, P-3 maps to Baa3 and NP maps to Caa1.
		In circumstances where commercial paper is not pari passu with senior unsecured long-term debt, we use the long-term rating that corresponds to the priority of the commercial paper. For instance, in a country with a resolution regime where bank commercial paper is senior to senior unsecured debt and pari passu with junior deposits, we use the long-term rating of junior deposits.
Partially Supported Asset- Backed Commercial Paper (ABCP) Programs rated P-1	Use Aa3 as the Input	Because these ABCPs have only partial support, we assume that for the P-1 ABCP to be marketable, the asset quality in a partially supported ABCP program is at least equivalent to Aa3 quality.
Partially Supported Asset- Backed Commercial Paper (ABCP) Programs rated below P-1	Senior Unsecured Rating	For partially supported ABCP rated below P-1, we generally consider the long-term senior unsecured rating of the liquidity provider.
Fully Supported Asset- Backed Commercial Paper Programs	Counterparty Risk (CR) Assessment	If the primary activity of the ABCP program is to directly fund a bank's commercial clients on a revolving basis (activity that might be sustained in the bank's resolution), we generally consider the bank's CR Assessment to be the reference point.
Fully Supported Asset Backed Commercial Paper Programs rated below P-1	Senior Unsecured Rating	If the primary activity of the ABCP conduit is to fund securities or other assets transferred to it by a bank, which is generally the sponsor, we consider the motive and function of the program to be consistent with the bank's own funding activities and, as a result, use the bank's senior unsecured rating as the reference point.
Fully Supported Asset- Backed Commercial Paper Programs rated P-1	Use A2 rating as the Input	If the primary activity of the ABCP conduit is to fund assets through support agreements with P-1-rated support providers but the program sponsor does not disclose the names of the support providers, we use an A2 rating for the input into our credit matrix and adjusted NAV.
Variable-Rate Demand Obligations	CR Assessment	We treat variable-rate demand obligations as exposure to the financial institution providing the liquidity or credit support, and

Investment Type	Reference Point	Comments		
		we use the CR Assessment for that financial institution as the reference point.		
Repurchase Agreements	Rating of Repurchase Agreement Collateral or Counterparty's Counterpart Risk Rating / Issuer Rating	Depending on the legal treatment of the transaction in a jurisdiction, we treat repurchase agreements as direct yinvestments in the underlying collateral or as exposure to the repurchase agreement counterparty. Where the repurchase agreement is treated as a true sale (i.e., the repurchase agreement transfers legal title to the collateral from the seller to the buyer by means of an outright sale), we look through to the repurchase agreement collateral. Otherwise, we treat it as exposure to the counterparty and use the counterparty's Counterparty Risk Rating (CRR) or its issuer rating.		

#### **Treatment of Derivatives**

Bonds funds may use derivative products for a wide variety of purposes, including hedging against interest rate, currency and other market risks; as a substitute for a direct investment in the underlying instrument; or to increase returns.

In assessing the impact of derivatives on a bond fund rating, we typically enter the individual components of the derivative transaction into the credit matrix and in adjusted NAV to reflect the derivatives' associated risks. These components include the reference point for the credit matrix (e.g., the counterparty risk captured through a bank's Counterparty Risk Rating (CRR)),<sup>17</sup> the exposure (the derivative's mark-to-market value) and the maturity (next settlement date). For example, the exposure from an interest rate swap is the net value of the long and short legs. If the net value is positive, a payment is owed to the fund by the swap counterparty. As a result, the fund has incremental credit exposure to the derivative's counterparty, absent any posted collateral. If the net value is negative, the fund is in the position of payor, in which case we do not input the value into the credit matrix.

Certain derivative instruments, such as credit default swaps and forward purchase contracts, add credit risk to the fund. For example, if a fund were to sell credit protection on a reference credit, it would then have credit exposure to that reference credit. In such a case, we would include the position in the credit matrix, using the senior unsecured rating of the reference security and the notional amount of the swap. If the fund were to instead purchase credit protection on an investment in its portfolio, we would use the CR Assessment of the swap counterparty as the input in the credit matrix.<sup>18</sup>

<sup>&</sup>lt;sup>17</sup> We use the CRR, the rating or other indicator that is most closely aligned to the counterparty risk. We may consider available posted collateral.

<sup>18</sup> If the fund does not purchase 100% credit protection, credit substitution would only then be applied to the percentage of the position that is credit-hedged.

# Appendix B: Closed-End Funds Rated Under This Methodology

Unlike open-end mutual funds, which typically have one class of shares bought from and redeemed by the fund itself, traditional closed-end funds (CEFs) are investment vehicles created through an initial public or limited offering. CEF common shares typically trade on a stock exchange and their value is based on supply and demand, rather than solely on net asset value. CEFs mainly invest in one particular asset type selected from a variety of sectors and enhance their returns by issuing debt and preferred stock, with the proceeds invested in new assets. Debt service and preferred dividends on CEF leverage are paid from investment earnings on the underlying assets and through the sale of those assets, which are generally not held to maturity.

This methodology may be used to assign bond fund ratings to CEFs that are issued with specific fixed-income investment objectives, that have only one class of shares and that are restricted in their capacity to incur debt (full restriction or strict limitation to instruments such as repurchase agreements or loans provided under government-sponsored programs where the only recourse is to the individual financed asset, e.g., the Term Asset-backed Securities Loan Facility in the US).

CEFs may also have credit ratings, although not concurrently with bond fund ratings. Please see our credit rating methodology for closed end funds.<sup>19</sup>

<sup>19</sup> A link to a list of our sector and cross-sector methodologies can be found in the "Moody's Related Publications" section.

# **Moody's Related Publications**

Bond fund ratings are primarily determined by this methodology. Certain broad methodological considerations (described in one or more sector or cross-sector rating methodologies) may also be relevant to the determination of bond fund ratings. A list of sector and cross-sector credit rating methodologies can be found <a href="here">here</a>.

For further information, please refer to Rating Symbols and Definitions, which is available <a href="here">here</a>.

Report Number: 1245297		
Authors	Production Associate	
Daniel Marty	Anthony Toribio	
Robert Callagy Vanessa Robert	M Gomathi	
Vanessa Robert		

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