

Bond Fund Credit Quality

Rating Criteria

Scope of the Criteria

Lianhe Ratings Global Limited (“Lianhe Global”) applies the bond fund credit quality rating criteria to bond funds and similar investment vehicles that invest in short- and long-term debt and debt-like instruments, such as commercial papers, certificates of deposits, and bonds.

Lianhe Global has developed the rating framework for bond funds based on our rating knowledge and experience. The criteria do not represent a comprehensive coverage but only address key rating factors we consider are important for assessing a bond fund’s overall credit profile and relative vulnerability to losses as a result of defaults of underlying holdings.

Other risks, including liquidity, operational, interest rate, currency and any other market risk, are excluded from the assessment. Therefore, bond fund assessments do not consider a fund’s historic, current, or prospective performance due to market movements. In addition, the criteria do not reflect a fund’s redemption risk, or potential deviations between the fund’s net asset value and the share price, as well as non-market event risk as these events are usually unforeseeable in nature and are unlikely to be considered when assigning bond fund ratings. Similarly, extreme tail-risk scenarios may not be incorporated. Also, Lianhe Global relies on the fund or fund administrator to provide data and may not always be able to identify data errors; this may have an impact on rating assignments.

The bond fund industry is continuously evolving and the rating framework or some rating elements of these criteria may not adequately address the emerging risk characteristics. Lianhe Global continues to look at the bond fund industry development and may revise the criteria when we deem it necessary.

Lianhe Global conducts regular surveillance on our assigned bond fund ratings, and requests data from rated bond funds on a quarterly basis generally. Lianhe Global may seek information at any time or on a more frequent basis in the event of heightened credit and/or liquidity stress, or any event risk. Apart from the data provided by the rated bond funds, Lianhe Global also review other relevant public and non-public available information.

Bond Fund Rating Symbols and Definitions

Lianhe Global’s bond fund rating criteria are used to assign Fund Credit Quality Ratings (“FCQRs”) to reflect the credit risk to which fund investors are exposed. A FCQR is an opinion on the maturity-adjusted credit quality of underlying holdings of a fixed-income investment fund or portfolio and its relative vulnerability to losses as a result of defaults within the portfolio. We may incorporate expectations for future changes in the portfolio composition, which is subject to uncertainty. Based on the actual or prospective average maturity-adjusted credit quality of the underlying portfolio holdings, a FCQR addresses the likelihood that a portfolio maintains a given credit quality over time. Unlike typical credit ratings (e.g., Long-term Issuer Credit Ratings), a FCQR does not address a fund’s ability to meet payment obligations or its yield and it is not a credit rating.

We add the suffix “f” to the seven rating categories (AAA, AA, A, BBB, BB, B, and C) to differentiate bond fund ratings from Lianhe Global’s Long-term Issuer Credit Ratings. FCQRs are not and should not be construed as an investment recommendation.

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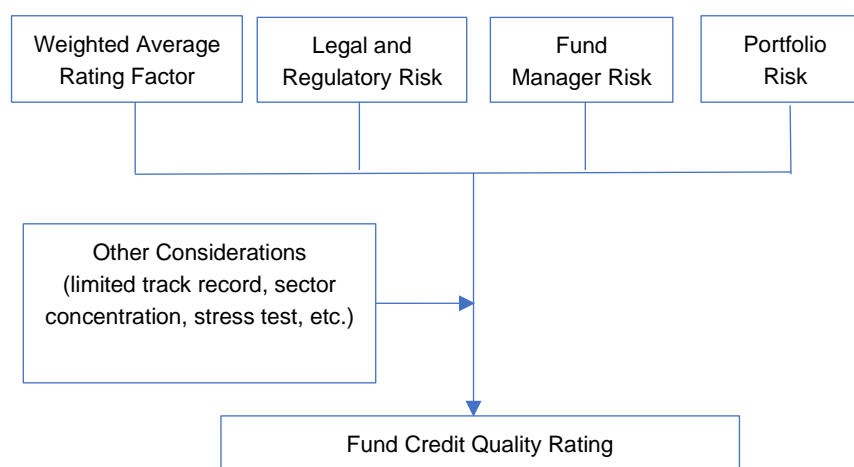
Rating	Definition
AAAf	Bond funds generally hold assets considered of very high credit quality and the assets are expected to maintain a weighted average rating factor ("WARF") in line with 'AAAf'
AAf	Bond funds generally hold assets considered of high credit quality and the assets are expected to maintain a WARF in line with 'AAf'
Af	Bond funds generally hold assets considered of upper-medium credit quality and the assets are expected to maintain a WARF in line with 'Af'
BBBf	Bond funds generally hold assets considered of medium credit quality and the assets are expected to maintain a WARF in line with 'BBBf'
BBf	Bond funds generally hold assets considered of speculative credit quality and the assets are expected to maintain a WARF in line with 'BBf'
Bf	Bond funds generally hold assets considered of highly speculative credit quality and the assets are expected to maintain a WARF in line with 'Bf'
Cf	Bond funds generally hold assets considered of poor credit quality, with material exposure to assets whose default is imminent or inevitable

Criteria for Fund Credit Quality Rating

The following diagram shows Lianhe Global's general approach in deriving a FCQR for a bond fund. Generally, we use a combination of qualitative and quantitative analysis to determine the FCQR.

Other considerations that may affect our rating opinions include limited track record, sector concentration, stress test, etc. Lianhe Global may assign a FCQR to a bond fund with no or limited track record, such as newly launched funds or funds with short operating history. In these cases, Lianhe Global mainly focuses on the fund's stated investment guidelines, the fund manager's track record and experience in fund management, as well as the fund's model portfolio in assessing the FCQR.

The rating framework for FCQRs:



Quantitative Assessment

Lianhe Global considers a bond fund's WARF as the primary driver of its FCQR, and the FCQR is largely determined by the rating implied by the WARF calculation, as detailed in the table below.

WARF Range	WARF-Implied FCQR
[0.0, 1.5)	AAA
[1.5, 3.0)	AA
[3.0, 6.0)	A
[6.0, 15.0)	BBB
[15.0, 25.0)	BB
[25.0, 35.0)	B
[35.0, 100)	C

A bond fund's WARF is the asset-weighted sum of each security's credit risk factor, which takes into account the maturity of the instrument, based on legal final maturity dates in most cases. We may estimate the maturity of underlying investments where there is no stated maturity (e.g., investing in another fund).

When calculating a bond fund's WARF, we mainly look at the international credit ratings of the individual securities and/or the issuers of these securities invested by the fund. Lianhe Global may also refer to other comparable credit opinions, such as internal credit ratings/assessments provided by fund managers, if we consider they adequately reflect the credit quality of underlying holdings, and Lianhe Global's private ratings or internal assessments. In some cases, we may adjust the referred credit rating, e.g. when there is a high likelihood that a rating will be upgraded or downgraded.

Credit risk factors of different rating categories and remaining maturity are shown in the table below. They are based on observed cumulative default rates and may be updated periodically.

Residual Maturity	AAA	AA	A	BBB	BB	B	CCC	CC and Below
0-60 days	0.00	0.01- 0.10	0.15- 0.40	0.80- 3.00	4.50- 8.00	10.00- 18.00	24.00	100.00
61-365 days	0.01	0.05- 0.15	0.20- 0.80	1.50- 4.50	6.00- 10.00	12.00- 24.00	50.00	100.00
>1 year	0.05	0.10- 0.20	0.40- 1.50	3.00- 6.00	8.00- 12.00	14.00- 30.00	50.00	100.00

Qualitative Adjustments

Lianhe Global makes qualitative adjustments to FCQRs primarily based on three major factors: legal and regulatory risk, fund manager risk, and investment portfolio risk.

Legal and Regulatory Risk

Considering that a bond fund may involve securities from different national bond markets, there are significant differences in the legal regulatory frameworks and terms for specific bonds. Therefore, Lianhe Global needs to conduct a fund operation-related legal compliance



review, with particular attention to the legal segregation of fund assets. Material weaknesses in the segregation and security of a fund's assets may have a negative impact on the FCQR.

Fund Manager Risk

Lianhe Global evaluates the fund manager of the bond fund to determine whether the fund manager has the appropriate qualifications, capabilities, and ability to manage the investment portfolio. An asset manager with weak competent of managing investment portfolio or with a volatile/poor track record may have a negative impact on the FCQR.

Portfolio Risk

Lianhe Global's portfolio risk assessment primarily considers concentration risk and counterparty risk. These indicators serve as measures for potential rating fluctuations. Maximum single issuer concentration (as a percentage of total fund investments) greater than 15%, other than relating to high-quality issuers, or counterparties rated below 'BBB-' international credit rating may have a negative impact on the FCQR.

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