

CCXAP publishes the rating methodology for bond funds

Summary

China Chengxin (Asia Pacific) Credit Ratings Company Limited (“CCXAP”) introduces a new methodology for assessing the credit quality of investments within a bond fund (“BF”). The methodology applies to bond funds or similar investment vehicles globally. BF includes many types such as bond mutual funds, exchange-traded funds, privately managed pools, and local government investment pools (“LGIPs”). It principally invests in fixed-income instruments such as bonds, loans, commercial paper, certificates of deposits, repurchase agreements, sovereign bonds, structured securities or derivatives.

Bond fund ratings are not credit ratings. It is our forward-looking view on the overall credit quality of a BF’s investment portfolio, with the consideration of investment maturity. Bond fund ratings do not address the fund’s ability to meet its payment obligations and are not a commentary on yield levels. Bond fund ratings are assigned to a portfolio of assets, rather than an individual security. We typically use the prefix “bf” to distinguish bond fund ratings from the conventional credit ratings.

Our general approach to evaluating bond funds consists of four parts: (1) credit quality; (2) portfolio stability; (3) stress tests (where applicable); and (4) other adjustment factors. Each part encompasses a subset of assessment. Our approach includes both the qualitative and quantitative factors. Quantitative factors may be assessed using historical or prospective data, or both.

This methodology describes our general approach to determining bond fund ratings, explains how we examine each key factor in detail, and illustrates the definitions and scales of bond fund ratings. It also includes a discussion of the assumptions and limitations underlying the rating methodology.

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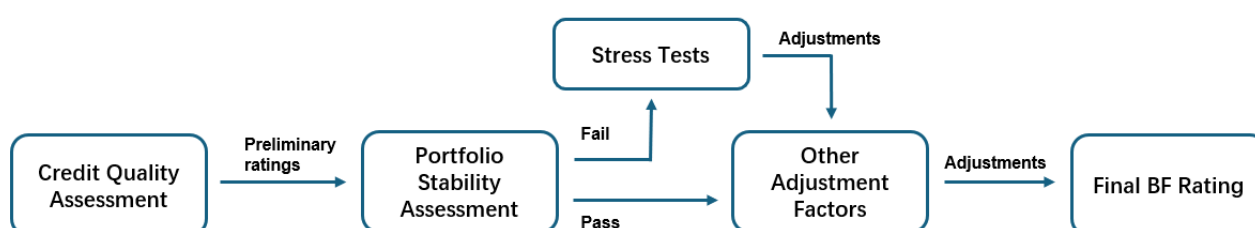
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Introduction of Rating Methodology

Our general approach to assessing a BF rating is shown in Exhibit 1. We begin our analysis with the examination of the weighted average credit quality of a BF's investment portfolio. By using a standard credit matrix to assign a specified amount of expected loss to each security or investment in the portfolio, we can determine the preliminary rating of a fund's investment portfolio. Next, we will enter into a portfolio stability assessment, which includes three key indicators: concentration risk, liquidity risk, and credit score buffer. If a BF fails the assessment, stress tests will be applied to determine whether rating adjustment is necessary. After that, we consider a standard set of qualitative factors, including the quality of the fund manager, the operating and regulatory environment, the operating track record and risk culture, the quality and timeliness of reporting, and the counterparty risk from derivatives, to derive the final BF rating.

Exhibit 1. Overview of CCXAP's approach to rate a bond fund



This methodology provides general guidance for bond fund ratings, but does not contain an exhaustive description of all factors that CCXAP may use in its rating considerations. As a result, the mapped rating may not match the final rating for each rated fund.

Rating Considerations

1. Credit Quality Assessment

When assessing the credit quality of bond funds, CCXAP focuses on the credit quality of individual holdings and the expected losses associated with these holdings. We also regularly review a fund's portfolio data to examine characteristics relevant to our methodology and assigned ratings.

There are two main attributes for calculating the credit metrics of a bond fund in credit quality:

- The par value of the fixed-income investment
- The expected loss of the fixed-income investment after considering its maturity

When assessing the overall credit risk of a fund, CCXAP conducts a rating analysis based on the fund's investment portfolio. We take long-term credit ratings as a reference point for assets held by the fund. A bond fund can hold a variety of assets, such as corporate bonds, certificate of deposits, loans, commercial paper, structured finance securities, repurchase agreements, sovereign bonds, cash, etc. Different debt instruments may refer to different types of ratings to represent the appropriate risk nature. For example, we may employ the long-term credit rating of a bank in which the fund makes a deposit, the senior unsecured debt rating for a bank-issued unsecured bond, and the subordinated debt rating for a bank-issued subordinated security.

If a long-term rating is not available, CCXAP will convert a short-term rating that is currently accessible to the appropriate long-term rating. For securities not rated by CCXAP, we shall utilize the long-term issuer rating from other reliable sources as a stand-in rating for that fixed-income instrument, provided that they are not secured or subordinated. In our rating analysis, CCXAP may also use internal or private ratings, as appropriate. Unrated exposures, with the exception of those that have been collateralized or guaranteed, are typically classified as non-investment grade assets. For instance, a security that lacks a given rating but gains access to a letter of credit ("LOC"), a guarantee, or another form of credit/liquidity enhancement will be assessed using the long-term credit rating of the LOC provider, guarantor, or credit/liquidity enhancement provider.

CCXAP will match the relevant long-term ratings of each investment holding with its long-term idealized loss table to obtain its expected loss. If an instrument has a maturity of less than 12 months, we will assume that the fund reinvests the proceeds in the instrument with same long-term rating and maturity over the course of 12 months. For an instrument with a maturity of one year, we match the expected loss to the one-year maturity. For maturity of more than one year, CCXAP will calculate non-yearly expected loss using linear interpolation based on our expected loss table. We may also evaluate the underlying investment portfolio assets or attributes for investment instruments with no stated maturity (for example, the investment holdings in another fund). In addition, the expected loss will be adjusted for an instrument with a maturity of less than 12 months to reflect the lower probability of default. For example, an AA_g-rated security with a remaining maturity of 60 days is expected to have expected losses that are similar to an AAA_g-rated security with a remaining maturity of 1 year.

2. Portfolio Stability Assessment

When assessing a BF's portfolio, we evaluate three key indicators: (1) concentration risk, (2) liquidity risk, and (3) credit score buffer. These indicators are gauges of potential rating volatility and inform our forward view of the rating. We evaluate each indicator as either "neutral" or "negative". If any indicator of the assessment is considered "negative", the BF will fail the assessment and stress tests will be applied to determine whether rating adjustment is necessary. The BF will pass the assessment if all indicators are "neutral".

(1) Concentration Risk

Diversification is crucial to the credit stability for a BF as credit change on large concentrated investments may drag down the fund's overall credit profile, limiting the ability of the manager to control the credit quality of the fund. We typically measure a BF's concentration risk by the maximum single issuer concentration exposure (percentage of total investments in funds). The indicator is "neutral" when we believe the issuer concentration exposure does not limit the manager's ability to manage the stability of the fund. The indicator is "negative" if we believe the issuer concentration exposure limits the manager's ability to manage the stability of the fund. However, there are exceptions to the funds that are designed to be concentrated on specific types of issuers or high-profile issuers. For example, a sovereign bond fund that invests largely in an issuer rated "AA_g" or better may be still considered "neutral" in this assessment, despite its concentrated holding. We may also use a high threshold for speculative funds, as they have limited issuance to choose from. In addition, we exclude investments with short maturities from the issuer concentration calculation because such exposure has limited risk to a change of the issuer's credit quality.

(2) Liquidity Risk

The fund's liquidity risk mainly arises from its exposure to illiquid assets. Investments compose mainly high-liquid assets enable to maintain efficient portfolio rebalancing and ensure sufficient flexibility to meet redemption obligations. Conversely, elevated allocations to illiquid instruments may impair the fund's ability to execute timely

asset disposals if facing stressed market conditions. Examples of illiquid assets include complex securities, opaque securities, or securities having limited or no market presence. We quantify the liquidity risk indicator by using the illiquid assets to NAV ratio. The indicator would be “neutral” when the ratio is at a low level and “negative” when consistently at a high level. Nevertheless, we may assess this indicator “neutral” if the fund’s cash management or redemption policies are able to mitigate its liquidity risk exposure.

(3) Credit Score Buffer

The fund’s credit score buffer primarily measures whether the preliminary rating score falls within a certain range of lower fund rating thresholds. Typically, if the preliminary credit rating does not fall within the 10% range of the lower fund rating threshold, the rating outcome is “neutral”. It is “negative” if it falls within the 10% range.

3. Stress Tests

Stress tests are applicable if a fund is unable to pass the portfolio stability assessment. We use stress tests to calibrate the ratings of bond funds under a set of scenarios to measure a fund portfolio’s sensitivity and vulnerability to negative credit migration. We may conduct one or several broad types of stress tests depending on the characteristics of a portfolio, including, but not limited to, concentrated portfolio, credit barbell, and specific market stress. For funds that have unique risks, we may supplement these tests with others or modify the tests to better capture the fund’s portfolio risks.

Concentration Stress: means to create a hypothetical stressed scenario based on the fund’s specific issuer exposures. For example, we may downgrade one notch on the ratings of the fund’s largest, top three, or top five issuers, thereby recalculating the expected losses to arrive at a pressurized rating. In general, we believe that the likelihood of a rating downgrade in a concentration stress test is greater when the largest issuer is more concentrated.

Credit Barbell Stress: means to create a hypothetical stressed scenario based on the distribution of the fund’s asset ratings. For example, we may downgrade one notch on the ratings of the fund’s investments that are rated two categories or below the fund’s preliminary rating. For two bond funds with the same average credit rating, the fund with lower dispersion in general exhibits lower tail risk and is more likely to pass the stress test. In contrast, a fund with more dispersion is more likely to fail the stress test, triggering a downgrade of the overall fund rating.

Market-Based or Sector-Based Stress: means to create a hypothetical stressed scenario based on the jurisdiction or sector of the fund’s investments. For example, we may downgrade the rating on issuers in a specific jurisdiction or sector that are experiencing adverse credit developments. A fund that is largely exposed to specific risk markets (e.g., emerging market bonds) may be notched down.

4. Other Adjustment Factors

CCXAP may consider other factors not included in the rating factors above, but in some cases, they may have a meaningful effect on a BF. Additional considerations may include the quality of the manager or sponsor, the operating and regulatory environment, operating track record and risk culture, quality and timeliness of reporting, and counterparty risk from derivatives. These factors often have a negative impact on bond fund ratings.

(1) Quality of Manager or Sponsor

The quality of a fund manager and sponsor is critical to its operation and performance. Fund managers have substantial influence over investment decisions and strategies and are often responsible for a significant portion

of a fund's success. The sponsor also plays an important role in the stability of the fund. Risk associated with the sponsor may negatively affect a BF's rating. A fund may experience significant redemptions when a fund's sponsor suffers from major financial deterioration or negative publicity, which may cause investors to lose confidence in the fund. CCXAP typically conducts qualitative assessments of the managers and sponsors to estimate the impact of these two entities. Key aspects of managerial quality include operating track record, corporate governance, and management policies and procedures in comparison to industry best practices. Financial stability, public image, and operating track record are all important factors in the quality of a sponsor. Funds will not receive rating upgrades for high quality managers and sponsors; however, we may notch down funds for poor quality managers or sponsors.

(2) Operating and Regulatory Environment

The operating and regulatory environment broadly affects a fund's operations. Different regions or markets may have distinct characteristics that meaningfully impact a BF. We intend to incorporate factors such as the local political, social, regulatory, economic and litigation environment that may affect the operating environment for a fund. CCXAP may consider to notch down a BF rating for unfavorable operating environment, for example, asset sales restrictions. In addition, we assess regional trends and significant events in other countries that may gradually affect the fund's operations.

(3) Operating Track Record and Risk Culture

CCXAP may, in some cases, assign ratings to a BF before its launch or with a very short track record. Assessments may be adjusted to focus on the manager's experience and the track record in managing funds with similar strategies or investment guideline. CCXAP will then evaluate the actual portfolio of the fund to make sure that the actual credit quality of the portfolio is consistent with the pro forma portfolio. Moreover, we will assess the risk culture of a fund which include risk appetite, credit management standards, and the quality of the management's credit analysis.

(4) Quality and Timeliness of Reporting

The quality and timeliness of reporting is essential for assessing a BF's rating. Given the nature of a BF, the fund's portfolio may vary from time to time. CCXAP highly relies on the accuracy and frequency of a fund's financial reporting. Poor reporting quality may manifest itself in incomplete disclosures, delayed reporting, and inconsistent accounting policies and procedures, which may affect our perception of the investment quality of a fund.

(5) Counterparty Risk from Derivatives

BF may engage in derivative transactions for different purposes, such as managing fund returns, hedging, or creating new investment exposure. The creditworthiness of derivative counterparties is also important to the credit quality of the portfolio. We believe that the counterparty creditworthiness should be at least equal to or higher than the fund's targeted credit exposure. CCXAP may consider to notch down a BF rating if the credit quality of the counterparties appears significantly lower than or inconsistent with the funds' credit strategy.

Bond Fund Credit Rating Scale

Bond fund ratings are not credit ratings. This is our forward-looking view on a BF's overall credit quality, with the consideration of investment maturity. We typically use the "bf" prefix to differentiate bond fund ratings from normal credit ratings on the global long-term rating scale.

Exhibit 2. CCXAP's bond fund ratings definition

Rating	Definition
bfAAA _g	"bfAAA _g " ratings indicate an extremely strong credit quality of the fund's investment portfolio.
bfAA _g	"bfAA _g " rating indicates a very strong credit quality of the fund's investment portfolio.
bfA _g	"bfA _g " rating indicates a strong credit quality of the fund's investment portfolio.
bfBBB _g	"bfBBB _g " rating indicates a moderate credit quality of the fund's investment portfolio.
bfBB _g	"bfBB _g " rating indicates a weak credit quality of the fund's investment portfolio.
bfB _g	"bfB _g " rating indicates a very weak credit quality of the fund's investment portfolio.
bfCCC _g	"bfCCC _g " rating indicates an extremely weak credit quality of the fund's investment portfolio.
bfCC _g	"bfCC _g " rating indicates that the fund's investment portfolio consists substantially of defaulted assets or assets close to default.
bfC _g	"bfC _g " rating indicates that the fund's investment portfolio consists predominantly of defaulted assets.

Assumptions and Limitations

The final ratings assigned are based on CCXAP's forward-looking opinions, which we assume any changes in the macro environment are aligned with our expectations, and do not incorporate any unanticipated changes, such as the outbreak of war and destructive natural disaster.

The ratings incorporate our expectations of the fund's future performance, which are mainly deduced from the historical information via our forward-looking model. Under some circumstances, the expectations would incorporate confidential information. In addition, our expectations would consider the industrial trend, rival analysis, and other considerations. In any case, prediction is subject to substantial uncertainty. Therefore, the mapped ratings may not match our final ratings. The ratings may include some qualitative factors. CCXAP would evaluate these factors in an objective and precise approach, but the assessment may be unavoidably affected by subjective views in some cases. Therefore, the weighting of rating considerations could be varied.

Furthermore, CCXAP assumes that the data used in the rating is true, legal and does not incorporate misleading statements. The ratings rely on public information and information provided by the fund manager and its related parties. CCXAP does not ensure the integrity, truthiness, and completeness of the data. Due to the delay of information, the ratings may on some occasions not reflect the fund's credit risk in a timely manner.

Apart from that, the ratings are decided by our rating committee and could be influenced by their empirical views which may not be incorporated in the rating methodology. As a result, the final ratings could be varied with the mapped rating from the methodology.

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