MOODY'S INVESTORS SERVICE

RATING METHODOLOGY

US Public Housing Authority Capital Fund Bonds

This rating methodology replaces "US Public Housing Authority Capital Fund Bonds", last revised on November 10, 2016. We have updated some outdated links and removed certain issue-specific information.

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Summary

This rating methodology outlines our approach to rating public housing authority (PHA) capital fund bonds issued in the US municipal market. It provides general guidance that helps investors, issuers, and other interested market participants understand the factors that affect rating outcomes in this sector. The methodology is not meant to be an exhaustive discussion of all factors considered by analysts as we rate the Public Housing Authority Capital Fund bonds, but should enable the reader to understand the quantitative and qualitative considerations that are usually most important for ratings in this sector.

Debt service coverage along with three other credit considerations are important in our assessment of PHA capital fund bonds. Debt service coverage is the primary driver of rating differentiation as it distinguishes the relative tolerance the financing has to appropriation cuts.

Key Credit Factor

Coverage of debt service by federal capital fund allocations

Other Credit Considerations

1. Counterparty exposure

2. Pledge of capital funds and priority of payments

3. Structural considerations

It is important to note that this rating methodology is not intended to be an exhaustive discussion of all factors that our analysts consider in assigning ratings in this sector.

THIS METHODOLOGY WAS UPDATED ON SEPTEMBER 9, 2021. WE HAVE REMOVED REFERENCE TO THE "WEAK LINK PLUS APPROACH" TO RATING POOLED FINANCINGS.

Highlights of this report include:

- » A summary of the rating methodology
- » A description of the factor and other credits considerations that drive rating quality
- » Comments on the rating methodology assumptions, and limitations

This methodology describes the analytical framework used in determining credit ratings. In some instances, our analysis is also guided by additional publications which describe our approach for analytical considerations that are not specific to any single sector. Examples of such considerations include but are not limited to: the assignment of short-term ratings, the relative ranking of different classes of debt and hybrid securities, how sovereign credit quality affects non-sovereign issuers, and the assessment of credit support from other entities.[1]

About the Rated Universe

This methodology is applicable to capital fund bonds issued by public housing authorities (PHAs), entities created by state and local governments to own, maintain and operate housing projects for low income families. The capital fund program was created by Congress in 1998 to provide financial support for capital upkeep and modernization of PHAs' housing stock. Under the capital fund program, Congress appropriates a lump sum to the US Department of Housing and Urban Development (HUD) every year. This sum is then allocated by HUD to individual PHAs on a formula basis and intended for their use on capital projects.

In an effort to raise money upfront to finance large scale projects and capital improvements, a portion of the PHAs have issued capital fund bonds which are repaid by, and secured by a first lien on, their annual capital fund allocations from HUD. While most rated bonds are secured by HUD allocations to a single PHA, several bond financings are secured by the pledge of HUD allocations to more than one PHA under a single bond program.

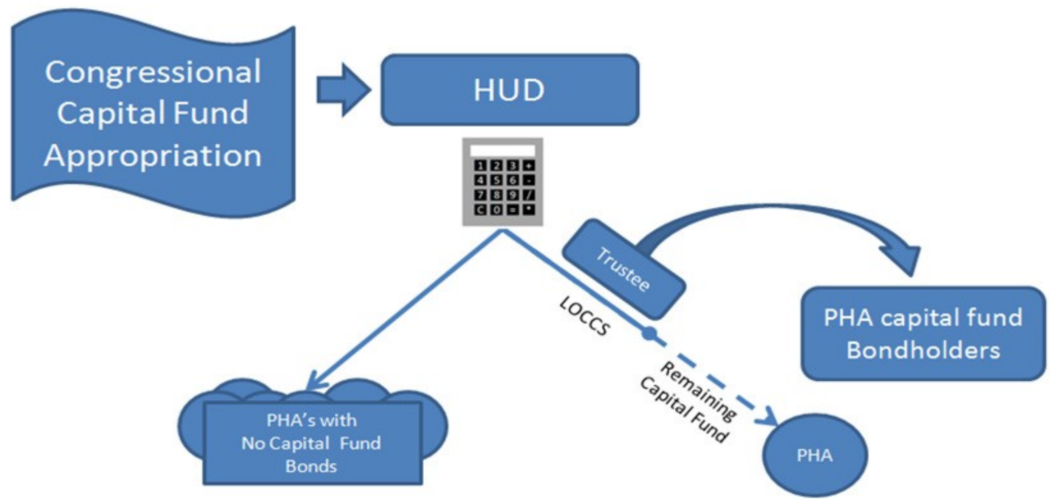
About This Rating Methodology

This report explains the rating methodology for public housing authority capital fund bonds issued in the US municipal market, and identifies the key factor and other credit considerations that affect our ratings.

In order to raise funds to finance large scale projects and capital improvements, many PHAs issue bonds which are secured by a first lien on their annual capital fund allocations from HUD. HUD's Line of Credit Control System (LOCCS) ensures that first dollars of the annual allocations are used to pay debt service on the bonds. The capital fund allocations are the sole source of payment for debt service on the bonds, and therefore the size of each PHA's annual allocation relative to maximum annual debt service (MADS) on the bonds is the primary credit factor in each bond program.

[1] The methodologies covering our approach to these cross-sector considerations can be found in the Related Publications section of this report.

EXHIBIT 1



Source: Moody's

The PHAs' annual allocation is strongly driven by the overall federal capital fund appropriation to HUD.

Key Rating Factor

Coverage of Debt Service by Capital Fund Allocations

Why Debt Service Coverage Matters

Debt service coverage is the primary factor driving our assessment of bonds in this sector and provides a strong indication of the rating on the bonds. The other credit considerations addressed in this methodology are reviewed to assess if they support or detract from the overall credit quality of the bonds and are considered in the final rating assignment.

Coverage is critical to the strength of PHA capital fund bonds because it provides a buffer against future declines in funding to the capital fund programs. While we expect the operating environment will continue to be challenging, in part because of the demands for maintaining now aged facilities, the risk of future funding cuts is mitigated by sufficient debt service coverage levels that allow programs to absorb sharp declines in annual funding and continue paying debt service on the bonds.

How We Measure It

The high variability in annual program funding levels that has occurred drives the credit standing of the bond programs, leading to ratings that are typically not higher than the A range. We have established a guideline, set forth in Exhibit 2, for MADS coverage levels associated with various rating categories. The guideline reflects the capacity of bond programs at each rating category to absorb potential capital fund declines. For example, a 20-year bond program with a debt service coverage of 3.0x at issuance can absorb a compound annual decline in capital funding up to 7.2% through maturity before its debt service reserve fund is depleted, and would be rated A2 reflecting that the breakeven decline is substantially above the historic average. In contrast, a 20- year capital fund bond program with a 1.75x coverage can only absorb an annual decline of 4.2% and its Baa3 rating reflects less cushion between the bond's breakeven and historic declines.

EXHIBIT 2

Rating Guideline: Maximum Annual Debt Service (MADS) Coverage Ranges

Rating	MADS Coverage Range	Compound Annual Decline in Funding That Can Be Absorbed over 20 Years
A1	> 10.00x	> 13.2%
A2	9.99x - 3.00x	13.1% - 7.2%
A3	2.99x – 2.50x	7.1% - 6.2%
Baa	2.49x – 1.75x	6.1% - 4.2%
Ba	1.74x – 1.33x	4.1% - 2.6%
B or below	< 1.32x	Cannot absorb 2.6% Cuts

Source: Moody's

Approach to Rating Pooled Financings

While most rated bonds are secured by the pledge of a single HUD allocation to one PHA, there are several bond financings which are pooled and are secured by the pledge of HUD allocations to more than one PHA. These pooled financings do not provide cross-collateralization of capital fund allocations from HUD, and thus each PHA is obligated to pay its share of debt service. Therefore, our ratings for these pooled bond financings are linked to our assessment of the PHA with the lowest debt service coverage in the pool.

MADS coverage is calculated by dividing most recent capital fund allocation to an individual PHA by the PHA's highest debt service payment in any single year. In instances where Replacement Housing Factor (RHF) funds are also pledged to the bonds, the calculation includes the RHF funds.

In our surveillance of ratings, we calculate each bond program's debt service coverage level and assess each bond program's current rating on an annual basis, following the capital fund allocations from HUD. We take into consideration the PHA's plans for maintaining a steady number of units in their portfolio to support steady HUD allocations, and thus sufficient debt service coverage for the life of the bonds. Any reduction in a PHA's housing stock from a variety of factors, including a demolition or conversion of the units out of the public housing program, could reduce a PHA's funding under HUD's formula for allocating capital funds, which is based on factors including the number of units that the PHA owns.

Furthermore, we also evaluate each PHA's plans to issue additional capital fund bonds. When PHAs issue additional bonds, the increase in debt drives down the MADS coverage of the bonds. Rated PHAs have implemented Additional Bonds Tests (ABT) which limit the extent to which they can issue additional capital fund bonds.

When assessing new ratings or existing ratings, we collectively consider the current MADS coverage, the ABT, the number of units in the portfolio, and the PHA's plans to issue additional capital fund bonds.

We believe that these guidelines reflect the ability of the financings to continue to cover the debt service on the bonds even if funding cuts continue. In the future, we will continue to assess the level of the capital fund appropriation and the appropriateness of our current methodology.

Other Credit Considerations

Counterparty exposure

The credit quality of various participants in the financing are important because the participants' ability to honor their obligations will affect the PHA's ability to make debt service payments to bondholders.

The US government is the primary counterparty in these transactions as it appropriates the capital fund to the PHAs. Inherent in our analysis of the Capital Fund Program is the credit quality of the US government. In the event that the rating of the United States government falls substantially and converges to the rating of the PHA capital fund bond, the bond rating could be reduced to levels below those indicated in Exhibit 2.

In addition, the rating of the debt service reserve investment or surety provider could impact the rating of the PHA capital fund bonds. The performance of the investment or surety provider is an important factor in assessing the rating of a capital fund bond because the reserve fund may need to be drawn upon in the event of a delay or shortfall in the appropriation. If the provider is unable to perform in accordance with the terms of the investment or surety, there may be a debt service payment shortfall on the bonds. Therefore, if the rating of the investment or surety provider, is below the debt service coverage indicated rating of the bonds (Exhibit 2), then the assigned rating on the bonds could be lowered.

Pledge of Capital Funds and Priority of Payments

The pledge of capital fund payments to the bonds is an important consideration because it ensures that bondholders have a valid security pledge in the payments, and that the risks of the PHA spending the funds for other purposes, or HUD withholding funds due to administrative sanctions, are remote.

In a typical transaction structure, the HUD appropriation is first used to pay debt service, before the PHA can spend funds for other purposes. HUD is involved in approving these transactions and gives assurances that the portion of capital fund allocations needed to pay debt service will be held harmless from administrative sanctions. These protections are outlined in the following documents: 1) HUD approval letter, 2) Trust Indenture, and 3) Annual Contributions Contract (ACC) between HUD and the individual PHA. (Under the ACC, HUD provides an allocation of public housing funds to a PHA and the PHA agrees to administer the program in accordance with its requirements). In cases where bondholder protections are materially weaker than the typical structure, the assigned rating will be lower than the rating indicated in Exhibit 2 to reflect additional risks.

One of the key documents is the HUD Approval Letter, which addresses any areas where HUD practices will vary from those used to administer traditional pay-as-you-go modernization work. Among the key factors, we typically see the following in the HUD Approval Letter:

» Capital fund allocations to the PHA(s) are pledged to pay debt service.

» Bondholders have a first lien on capital fund monies and a perfected security interest in these funds.

» Successor programs of the capital fund are pledged to bondholders.

» Subsequent legal changes in the use of capital fund will not affect the ability to use PHA allocations to pay debt service.

- Capital fund monies flow directly to the bond Trustee through the Line of Credit Control System (LOCCS) or other methods established by HUD to ensure that the Trustee receives the monies in a fashion which protects bondholders.
- Amounts sent to the trustee are not subject to recapture.
- The covenants contained in the HUD Approval Letter are also mirrored in the HUD ACC Amendment.

PHA Performance Risk

The hold harmless provisions in HUD's approval letter protect bondholders from the risk that HUD would withhold or reduce monies to the PHAs as an enforcement mechanism for poorly managed PHAs. Nonetheless, HUD still retains the ability to withhold capital fund allocations to PHAs that do not obligate and expend their allocation within 24 and 48 months, respectively. To assess obligation and expenditure risk at the initial ratings, we review the PHA's history of obligated and expended federal capital funds to determine the ability of the PHA to meet this timing going forward. We also review each PHA's performance of timely obligation and expenditures during our annual surveillance process. Historically, capital allocations to the rated programs were obligated in a way that did not cause HUD to withhold future capital funding.

Financing Structural Considerations

A financing's structural considerations establish features that protect bondholders, such as a debt service reserve fund and additional bonds test. To the extent that certain factors differ from the typical financing, the rating could be higher or lower than the rating implied by the other credit factors.

Our assessment of the legal structure is primarily based on the strength of the following:

- The extent to which the language in the HUD Approval Letter is also mirrored in the legal documents.
- The length of the financing term. We typically see 20 year, fully amortizing bonds. Longer financing terms are likely to result in a lower bond rating since there is a greater time period over which reductions in funding could occur. Shorter financing terms may achieve higher ratings.
- The terms of the additional bonds test (ABT). ABTs at levels below current coverage levels may result in a lower bond rating if we expect further issuance.
- If appropriate lags and reserve funds are built into the timing of debt service payments to reflect both the federal appropriation process and the HUD allocation process.
- The funded level of the debt service reserve fund. A debt service reserve funded at lower than MADS, absent offsetting factors such as extremely high coverage or additional lags, is likely to result in a lower bond rating while additional reserves could result in higher ratings.

Assumptions and Limitations

While the key rating factor and other credit considerations outlined in this methodology do not constitute an exhaustive treatment of all of the considerations that are important for ratings of PHA Capital Fund bonds, we do not expect any ratings to differ meaningfully from the expected outcome. This is mainly because public housing authority capital fund bonds are only secured by the annual capital fund allocations from HUD, and thus we do not expect additional credit factors not discussed here to materially drive ratings. Any additional differentiating factors, such as the operating performance of PHAs, do not have credit implications under this methodology.

Appendix: Public Housing Authority Capital Fund Bonds Rating Factor and Credit Considerations

Key Credit Factor

Coverage of Debt Service by Capital Fund Allocations
Provides a buffer against future declines in funding to the capital fund programs
MADS coverage is calculated by dividing most recent capital fund allocation to an individual PHA by the PHA's highest debt service payment in any single year
Pooled bond financings are linked to our assessment of the PHA with the lowest debt service coverage in the pool

Other Credit Considerations

Counterparty exposure
The rating and outlook of various participants in the financing are important because the participants' ability to honor their obligations will affect the PHA's ability to make debt service payments to bondholders
The US government is the primary counterparty as it appropriates the capital fund
In addition, the rating of the debt service reserve investment or surety provider could impact the rating of the PHA capital fund bonds

Pledge of Capital Funds and Priority of Payments
Ensures that bondholders have a valid security pledge in the payments HUD appropriation is first used to pay debt service on the bonds
Bondholders have a first lien on capital fund monies and a perfected security interest in these funds
Subsequent legal changes in the use of capital fund will not affect the ability to use PHA allocations to pay debt service.

Structural Considerations
The length of the financing term is typically 20 year, fully amortizing bonds
The funded level of the debt service reserve fund. A debt service reserve funded at lower than MADS is likely to result in a lower bond rating
The extent to which the language in the HUD Approval Letter is also mirrored in the legal documents

Moody's Related Publications

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

For data summarizing the historical robustness and predictive power of credit ratings, please click here.

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

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