MOODY'S
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Credit Opinion: Federal Home Loan Bank of Boston

Global Credit Research - 12 May 2016

Boston, Massachusetts, United States

Ratings

Category	Moody's Rating
Outlook	Stable
Bank Deposits	Aaa/P-1
Parent: Federal Home Loan Banks	
Outlook	Stable
Senior Unsecured	Aaa
ST Issuer Rating	P-1

Contacts

Analyst	Phone
Jason Grohotolski/New York City	1.212.553.1653
Warren Kornfeld/New York City	
Robert Young/New York City	
Nataliya Loengard/New York City	

Key Indicators

Federal Home Loan Bank of Boston [1][2]

	2015	2014	2013	2012
Total Assets	58,109	55,107	44,638	40,209
Tangible common equity	3,504	3,607	4,293	4,255
Total shareholders' equity	3,065	3,176	3,815	3,782
Return on average assets (FHLB)	0.52%	0.29%	0.54%	0.45%
Return on average equity (FHLB)	9.54%	5.24%	7.40%	6.03%
Advances % Total assets	62.1%	60.8%	61.6%	51.7%
Mortgage Loans % Total assets	6.17%	6.33%	7.55%	8.66%
Retained earnings and related reserves % Total assets	1.94%	1.64%	1.77%	1.46%
Private Label MBS % Total Assets	1.66%	1.94%	2.61%	3.28%
YTD net interest margin (FHLB)	0.41%	0.41%	0.65%	0.68%
Total regulatory capital ratio	6.00%	6.60%	9.60%	10.60%
Liquid Assets (FHLB) % Short term debt	41.68%	45.81%	40.00%	61.23%

[1] All figures and ratios are adjusted using Moody's standard adjustments [2] US GAAP

Opinion

SUMMARY RATING RATIONALE

The Federal Home Loan Bank of Boston (FHLBank of Boston or FHLBank) Aaa long term rating and Prime-1 short-term deposit ratings reflect the combination of the FHLBank of Boston's Baseline Credit Assessment (BCA) of a1, very high cooperative support from the FHLBank System and very high systemic support from the US government (Aaa debt rating). The outlook for all ratings is stable.

The FHLBank of Boston's BCA is a1 due to the excellent asset quality of its advance portfolio, investment portfolio (excluding the private label MBS portfolio), and its mortgage portfolio, along with its consistent earnings generation and its role as a central liquidity provider for US banks. The FHLBank of Boston benefits from its strong advance business as compared to the other FHLBanks, with $36.1 billion outstanding as of year end 2015, up from $33.5 billion as of year end 2014. As of year end 2015, the bank had 1.66% of private label MBS as a percent of total assets. Moody's believes the FHLBank of Boston has the financial flexibility to absorb additional credit losses on its private label MBS portfolio. The FHLBank of Boston mortgages are 6.17% of assets. While the credit performance of the FHLBank's mortgage assets has been excellent, mortgage assets carry heightened operational complexity along with greater interest rate risk and credit risk relative to the FHLBank's core lending business.

The a1 BCA reflects Moody's opinion about the FHLBank of Boston's intrinsic or stand-alone financial strength and excludes extraordinary support, either from the FHLBank System or the US Government. The FHLBank of Boston's a1 BCA receives zero notches of support from the FHLBank System given the FHLBank System's a1 BCA. Moody's very high US government support assumption lifts the FHLBank's deposit ratings to Aaa.

The outlook on the FHLBank of Boston's Aaa long-term deposit, as well as the FHLBank System's Aaa debt ratings is stable, reflecting the stable outlook on the US government. Any rating actions on the US Government would likely result in all individual FHLBanks' long-term deposit ratings and the FHLBank System long-term bond rating moving in lock step with any US sovereign rating action.

GSE Reform

GSE reform has not progressed very far. To date, the reform is primarily focused on the roles of Fannie Mae and Freddie Mac. However, the FHLBanks are likely to be included in the reform, though the impact remains uncertain. Moody's will monitor GSE reform as it progresses, as well as its impact on the FHLBanks.

Rating Drivers

- Joint and several liability reduces default risk of Systemwide liabilities

- Central liquidity provider to US banks

- Excellent asset quality of its advance portfolio, investment portfolio (excluding the private label MBS portfolio), and its mortgage portfolio

- Narrow charter and bank consolidation limit growth

- Substantial single borrower concentrations

Rating Outlook

Moody's stable outlook for the FHLBank System's long-term bond rating and the FHLBank of Boston's long-term deposit ratings reflects the stable outlook of the US government's Aaa debt rating.

What Could Change the Rating - Up

Factors that would lead to an upgrade of FHLBank of Boston's BCA include a reduction in its mortgage business and maintaining consistent risk-adjusted returns and strong asset quality.

What Could Change the Rating - Down

Any rating actions on the US Government would likely result in all individual FHLBanks' long-term deposit ratings and the FHLBank System's long-term bond rating moving in lock step with any US sovereign rating action.

Barring a downgrade of the US sovereign rating or a material downgrade of FHLBank system's BCA, Moody's does not expect changes to the FHLBank of Boston's long- and short-term deposit ratings. This is due to the fact that the deposit ratings incorporate an expectation of a very high degree of US Government support.

Factors that could lead to a downgrade of the FHLBank of Boston's a1 BCA include a material increase in loss expectations on the private label MBS portfolio, a material decline in profitability (quarterly net losses over four quarters) or significant asset-liability mismatches.

DETAILED RATING CONSIDERATIONS

The FHLBank of Boston lends to member institutions in the form of advances, which are over-collateralized and generally short-term, minimizing the credit risk on these loans. In addition, the FHLBanks benefit from its statutory lien priority with respect to pledged member assets. Moody's baseline credit assessment represents our opinion of the likelihood that the institution will require extraordinary support from an external party. The FHLBank of Boston's high a1 BCA reflects the bank's strong credit culture, and stable, although low, profitability. Below are the detailed rating factors that influence the FHLBank's ratings and outlook.

Profitability

FHLBank of Boston's low but consistent profitability (as measured by ROAA) reflects the primarily low risk profile of its asset base. As of year end 2015, the FHLBank of Boston's ROAA was 0.52%, up from 0.29% as of year end 2014, compared to 0.90% for A-rated US Banks.

Capital Adequacy

The FHLBank of Boston is required by legislation to maintain minimum regulatory capital of 4% of its total assets. As of year end 2015, the capital ratio of the FHLBank was 6.00%, compared to 6.60% as of year end 2014. Over the longer term, Moody's expects that the FHLBank's capital levels will return to more normal levels around 4.5% to 5.0%.

Asset Quality and Credit Risk Management

Excluding the private label MBS portfolio, Moody's believes that the asset quality of the FHLBank of Boston is exceptional.

Advances, which represent about 62.1% of total assets, are over-collateralized and the FHLBank has never incurred a loss on an advance in its more than 80 year history. Similar to other FHLBanks, the FHLBank of Boston has significant borrower concentrations, a long-term earnings risk. Its top five advance borrowers represented 24.4% of total assets as of year end 2015, an amount lower than the 26.2% average (year end 2015) for the eleven FHLBanks.

The FHLBank of Boston's investment portfolio consists of high quality investments including US government and agency guaranteed securities. As of year end 2015, the bank had 1.66% of private label MBS as a percent of total assets. Moody's believes the FHLBank of Boston has the financial flexibility to absorb additional credit losses on its private label MBS portfolio, though a more severe economic downturn could weaken the FHLBank's overall financial fundamentals given the portfolio's size.

The FHLBank of Boston's mortgage portfolio, representing 6.17% of total assets as of year end 2015, similar to that of the other FHLBanks, has experienced far lower losses and delinquencies than industry averages. Nonetheless, asset-liability management of the mortgage portfolio can present challenges.

Interest Rate Risk Management

The FHLBank of Boston conservatively manages its interest rate risk exposures through the use of debt with similar characteristics to the FHLBanks assets, as well as derivatives. The FHLBank's primary asset is advances, which come in a variety of types, including fixed rate, variable rate, callable by the member as well as putable advances. With a putable advance, the FHLBank purchases a put option from the member that allows the FHLBank to terminate the fixed rate advance on specified dates and offer, subject to certain conditions, replacement funding at prevailing market rates. Prepayment fees, which mitigate interest rate risk, are also a common feature of advances.

Liquidity and Funding

The FHLBanks' GSE status has provided it with consistent and stable access to the debt market. Consequently, the FHLBanks generally maintain lower liquidity than non-GSE entities. As of year end 2015, the FHLBank of Boston had liquid assets as a percentage of short term debt of 41.7%, as compared to 26.1% for the FHLBank system.

The Federal Housing Finance Agency, the regulator of the FHLBanks, requires each FHLBank to maintain sufficient liquidity in an amount at least equal to an FHLBank's anticipated cash outflows under two different scenarios. One scenario assumes that an FHLBank cannot access the capital markets for a period of between 10 to 20 days, with initial guidance set at fifteen days and members do not renew any maturing, prepaid and called advances. The second scenario assumes that an FHLBank cannot access the capital markets for a period of between three to seven days, with initial guidance set at five days during which members will automatically renew maturing and called advances for all members except very large, highly rated members. The FHLBank of Boston also met all other internal liquidity requirements at year end 2015.

Key Relationship with the FHLBank System

A significant underpinning of the Baseline Credit Assessments is the joint and several nature of the consolidated obligations of the FHLBank System. The financial strength of individual FHLBanks is very sound, and the joint and several liability contributes to the overall strength of the FHLBank System by narrowing any ratings differences among the individual FHLBanks that could exist were ratings to exclude the joint and several feature. As a result, the ratings of the weakest FHLBanks are increased, and the ratings of the strongest are lowered.

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