MOODY'S
INVESTORS SERVICE

CREDIT OPINION
14 November 2017

Update

Rate this Research

Contacts

Brian L. Harris 212-553-4705
Senior Vice President/ Manager
brian.harris@moodys.com

Jason Grohotolski 212-553-1067
VP-Sr Credit Officer
jason.grohotolski@moodys.com

Federal Home Loan Banks

Semiannual Update

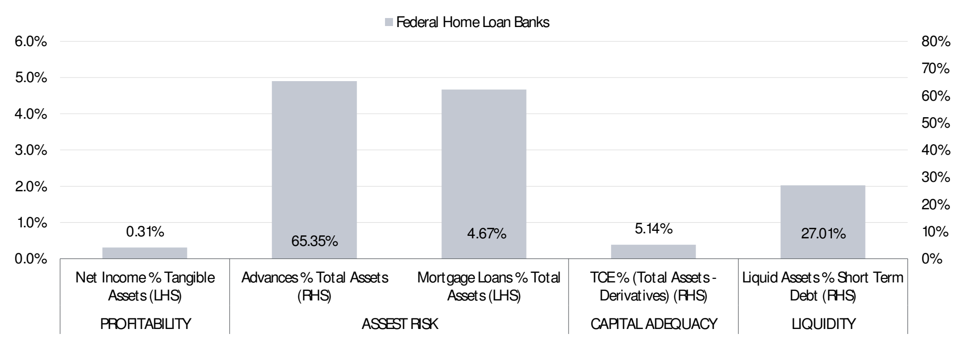
Summary Rating Rationale

The Federal Home Loan Bank System's (FHLBank System or FHLBank) Aaa long term rating and Prime-1 short-term deposit ratings reflect the combination of the following elements: 1) an a1 baseline credit assessment (BCA), 2) very high support from the Aaa with a stable outlook rated US Government, and 3) high dependence between the FHLBanks and the US Government.

The FHLBank System's a1 BCA reflects the FHLBank System's financial strength, earnings stability, excellent asset quality and special role as a provider of liquidity to US Financial Institutions. In arriving at the FHLBank System's BCA, Moody's considers the individual BCA of each of the FHLBanks as well as the profile of the FHLBank System as if it were one, combined entity. The FHLBank System's BCA incorporates the joint and several liability of all FHLBank consolidated obligations.

The outlook on the FHLBanks 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's long-term bond rating moving in lock step with any US sovereign rating action.

Exhibit 1
Rating Scorecard - Key Financial Ratios [1]



[1] As of 6/30/2017
Source: Moody's Financial Metrics

Credit Strengths

- » Joint and several liability reduces default risk of the FHLBank System's consolidated obligations
- » Central liquidity provider to US Financial Institutions
- » Excellent asset quality of 1) the advance portfolio, 2) the investment portfolio excluding the private label RMBS portfolio, and 3) the mortgage loan portfolio

Credit Challenges

- » Narrow charter and bank consolidation constrain growth and profitability
- » Substantial single borrower concentrations at individual FHLBanks
- » Material but declining private-label securities portfolio

Rating Outlook

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

Factors that Could Lead to an Upgrade

An upgrade of the FHLBank System's BCA is unlikely. However, an upgrade of the BCA could occur if the FHLBanks re-focused their businesses such that advances represent more than 70% of assets while maintaining i) strong profitability as reflected by an ROAA consistently in excess of .35%, ii) a stable member profile and iii) continued strong asset quality.

Factors that Could Lead to a Downgrade

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 the FHLBank System's BCA, Moody's does not expect changes to the FHLBank System's long- and short-term bond ratings. This is due to the fact that the ratings incorporate an expectation of a very high degree of US Government support.

Factors that could lead to a downgrade of the FHLBank System's BCA of a1 include materially higher loss expectations on the private-label RMBS portfolio, materially lower profitability (quarterly net losses over four quarters) or significant asset-liability mismatches.

Key Indicators

Exhibit 2
Federal Home Loan Banks [1] [2]

	2Q 2017 [2]	2016 [2]	2015 [2]	2014 [2]	2013 [2]
Total Assets (USD million)	1,081,699	1,056,712	969,239	913,343	834,178
Tangible common equity (USD million)	55,507	54,219	49,334	49,487	50,504
Total shareholders' equity (USD million)	56,047	54,163	48,787	49,634	50,046
Return on average assets (FHLB)	0.32%	0.34%	0.31%	0.26%	0.32%
Return on average equity (FHLB)	6.36%	6.90%	6.12%	4.93%	5.85%
Advances % Total assets	65.35%	66.74%	65.4%	62.5%	59.8%
Mortgage Loans % Total assets	4.67%	4.59%	4.60%	4.78%	5.34%
Retained earnings and related reserves % Total assets	1.59%	1.55%	1.48%	1.45%	1.46%
Private Label MBS % Total Assets	0.94%	1.06%	1.43%	2.01%	2.55%
YTD net interest margin (FHLB)	0.38%	0.38%	0.39%	0.41%	0.44%
Total regulatory capital ratio	5.14%	5.14%	5.10%	5.43%	6.06%
Liquid Assets (FHLB) % Short term debt	27.01%	25.69%	26.13%	29.79%	30.23%

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

Detailed Rating Considerations

The FHLBanks' primary business is lending to member institutions in the form of advances, which are generally short-term and over-collateralized, minimizing the credit risk on these loans. The FHLBanks also purchase mortgage loans through either the Mortgage Partnership Finance (MPF) Program or the Mortgage Purchase Program (MPP). The FHLBanks also invest in securities, principally MBS, subject to an investment limit of three times regulatory capital without approval by the Federal Housing Finance Agency. Below are the detailed rating factors that influence the System's ratings and outlook.

Profitability

FHLBank System's low but consistent profitability (as measured by ROAA) reflects the primarily low risk profile of its asset base. Through Q2 2017, the FHLBank of System's ROAA was 0.32%, flat from the same period in 2016, compared to a median of 1.0% for A-rated US Banks as of Q2 2017.

Capital Adequacy

Each FHLBank is required by legislation to maintain minimum regulatory capital of 4% of its total assets. As of Q2 2017, the capital ratio of the FHLBank System was 5.14%, flat from FY 2016. In Moody's view, capital levels reflect the low risk profile of the FHLBank System's asset base which is primarily comprised of advances to members.

Asset Quality and Credit Risk Management

Excluding the private label MBS portfolio, Moody's believes that the asset quality of the FHLBank System is exceptional. Advances, which represent about 65.3% of total assets, are over-collateralized and the FHLBanks have never incurred a loss on an advance in their history. The FHLBanks' collateral requirements on advances, and their priority lien status (for Member banks), support credit quality in the event a member defaults on its advances. Each FHLBank has sole credit approval power and establishes its own underwriting standards and eligible collateral within Federal Housing Finance Agency guidelines. Eligible collateral includes current first-lien residential mortgages (overwhelmingly single-family) or securities backed by such mortgages, Federal Agency securities, FHLBank deposits and other real estate-related assets approved by the relevant FHLBank's board of directors.

Holdings of non-MBS instruments consist of high-quality liquid investments such as federal funds, resale agreements, US Government guaranteed debt and US Treasury securities. Potential losses on each of the respective FHLBanks' private-label RMBS portfolio represent the most significant credit risk to the FHLBanks, in Moody's view.

The FHLBanks' conforming mortgage portfolio programs, MPF and MPP, provide members with an alternative to Fannie Mae and Freddie Mac execution. The FHLBank System's mortgage portfolio represented 4.67% of total assets as of Q2 2017 versus 4.59% as of FY 2016. The FHLBanks' mortgage assets are more susceptible to credit loss, and in particular, carry heightened operational complexity relative to the FHLBanks' core lending business. Credit risk performance of MPF and MPP programs has been very good to date exceeding that of similar programs of Fannie Mae and Freddie Mac. This excellent track record reflects the high quality of mortgage assets purchased into the FHLBanks' MPF and MPP programs.

Liquidity and Funding

The FHLBanks' GSE status has provided it with consistent and stable access to the debt market. The FHLBanks internal sources of liquidity are modest.

The Federal Housing Finance Agency, the regulator of the FHLBanks, requires each FHLBank to maintain sufficient liquidity, through short-term investments, 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 ten to twenty days, with initial guidance set at fifteen days and during that time members do not renew any maturing, prepaid or 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, and during that period an FHLBank will automatically renew maturing and called advances for all members except very large members who are well-rated. All FHLBanks met the liquidity requirements as of Q2 2017.

Other

A significant underpinning of the BCA is the joint and several nature of the FHLBanks' consolidated obligations. 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 the 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.

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 http://www.moodys.com for the most updated credit rating action information and rating history.

Ratings

Exhibit 3

Category	Moody's Rating
FEDERAL HOME LOAN BANKS	
Outlook	Stable
Senior Unsecured	Aaa
ST Issuer Rating	P-1

Source: Moody's Investors Service

Recent Developments

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.

REPORT NUMBER 1098829

CLIENT SERVICES

Americas	1-212-553-1653
Asia Pacific	852-3551-3077
Japan	81-3-5408-4100
EMEA	44-20-7772-5454

MOODY'S INVESTORS SERVICE