

Credit Opinion: Federal Home Loan Banks

Federal Home Loan Banks

Reston, Virginia, United States

Ratings

Category	Moody's Rating
Outlook	Stable
Senior Unsecured	Aaa
Other Short Term	P-1
Federal Home Loan Bank of Chicago	
Outlook	Stable
Bank Deposits	Aaa/P-1
Subordinate	A2

Contacts

Analyst	Phone
Brian L. Harris/New York	1.212.553.1653
Craig A. Emrick/New York	
Robert Young/New York	
Christie Kang/New York	

Key Indicators

Federal Home Loan Banks

	[1]2008	2007	2006	2005	2004
ROAA (%)	0.09	0.25	0.26	0.26	0.23
ROAE (%)	3.80	6.01	5.80	5.84	4.93
Net Interest Margin (%)	0.40	0.42	0.43	0.45	0.48
Advances (\$bil)	928.6	875.1	640.7	619.9	581.2
Investments (\$bil)	258.4	298.7	270.7	266.5	224.9
Assets	1,349.1	1,274.5	1,016.5	997.4	924.8
Equity (\$bil)	51.4	53.6	45.0	44.5	41.9
Liquid Assets/ST Debt (%)	16.8	22.1	32.0	32.4	27.8

[1] For the year ended December 31, 2008

Opinion

SUMMARY RATING RATIONALE

The ratings of the FHLBanks reflect the combination of the following elements: 1) a baseline credit assessment (BCA) of 5, which is on a scale of 1 to 21, where 1 represents the lowest credit risk, 2) Aaa U.S. Government bond rating, 3) high dependence between the FHLBanks and the U.S. Government, and 4) high support between the two.

In May 2009, Moody's lowered the BCA of the FHLBank System to a 5 from a 2. A BCA of 5 is the equivalent of an A1 on Moody's long-term debt rating scale. The BCAs are intended to express an opinion about the institution's intrinsic or stand-alone financial strength and specifically exclude an assessment of the probability of extraordinary support. Moody's lowered the FHLBank System's BCA due to its weakened financial condition as a result of potential credit losses associated with its \$74.9 billion exposure to private-label RMBS. The FHLBanks' BCA incorporates the joint and several liability of all FHLBank consolidated obligations.

The FHLBank System's BCA reflects its excellent asset quality and consistent risk-adjusted profitability, as well as

the benefits associated with the joint and several liability for the FHLBanks' debt. Asset quality remains a core strength of the FHLBank System, having never incurred a credit loss on an advance, which represented over 68.8% of total assets at December 31, 2008. The FHLBank System's profitability reflects the lower risk profile of the System. The System's ROAA has been very stable with a standard deviation of 0.09% (adjusted for OTTI in 2008) from YE04 through YE08, a very low amount. The FHLBanks' standard deviation of ROAA compares with a 0.40% standard deviation of ROAA for all Aa-rated banks. Though the FHLBank System's ROAA of 0.19 (adjusted for OTTI) at December 31, 2008 is much lower than the 0.52% ROAA of Aa-rated banks.

Credit Strengths

Credit strengths include:

Joint and several liability reduces default risk of Systemwide liabilities

Central role as liquidity provider for banks and other financial institutions

Asset quality of advance and mortgage products remains excellent

Credit Challenges

Credit challenges include:

Narrow charter and bank consolidation constrain growth and profitability

Substantial borrower concentrations at individual FHLBanks

Material private-label securities portfolio

Rating Outlook

The stable outlook for the FHLBank System's ratings reflects Moody's expectation that the System will continue to receive strong bipartisan political support, that there will be minimal changes, if any, to its GSE status over the long term, and that the FHLBanks will retain their conservative risk temperament.

What Could Change the Rating - Up

An upgrade of the FHLBanks' BCA could occur with more clarity on potential losses from its \$74.9 billion private-label MBS portfolio, coupled with strong profitability reflected by a ROAA consistently in excess of 0.5%, a stable member profile and continued strong asset quality.

What Could Change the Rating - Down

Moody's does not expect changes to the senior debt ratings of the FHLBanks, as the FHLBanks' ratings already incorporate an expectation of a very high degree of U.S. Government support, which is a key factor in its current Aaa senior debt and Prime-1 short-term debt ratings. The importance of the FHLBanks' role as a liquidity provider to U.S. banks throughout the current crisis solidifies this view.

Material declines in capital as a result of OTTI or realized losses on its securities portfolio may lead to a lower BCA.

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 capital without approval by the Federal Housing Finance Agency. Below are the detailed rating factors that influence the System's ratings and outlook.

Baseline Credit Assessment

Profitability

Profitability of the Federal Home Loan Bank System is modest but adequate on a risk-adjusted basis. The System's ROAA as of December 31, 2008 was 0.19% (adjusted for OTTI) compared to 0.52% for Aa-rated U.S. domiciled banks. However, the System's 0.09% standard deviation of ROAA between 2004 and 2008 was much

lower than the 0.40% standard deviation for Aaa- and Aa-rated U.S. banks. The lower volatility of the System's earnings is likely due to the superior credit quality of the FHLBanks' assets, particularly advances and the lower cost structure of the FHLBank System. On a risk-adjusted basis (ROAA % of the five-year standard deviation of ROAA), the FHLBank System's return of 2.07% exceeded the 1.30% return of Aa-rated banks.

Interest Rate Risk Management

The FHLBanks conservatively manage their interest rate risk exposures through the use of debt with similar characteristics as the FHLBanks' assets, as well as derivative contracts. One of the measures the FHLBanks use to gauge their interest rate risk is the change in the duration gap between durations of assets and liabilities. The FHLBanks' interest-rate risk exposures are moderate and are not uniform, reflecting different exposures, risk management strategies and asset mix. At December 31, 2008, the FHLBanks' duration gap ranged from a low of -7.3 months (FHLBank of Des Moines) to a high of 5.7 months (FHLBank of Atlanta). In addition to duration measures, FHLBanks utilize value-at-risk measurements as part of their interest rate and market risk management. Growth in MPP and MPF® conforming mortgage programs in the first half of this decade elevated interest rate risks to those FHLBanks particularly active in this line of business. However, as FHLBanks decrease their MPP and MPF® activities, the associated incremental interest rate risk should decline.

Asset Quality and Credit Risk Management

The asset quality of FHLBank advances has been consistently outstanding, and we expect this to continue. To date, no credit loss has ever been incurred on an advance. The FHLBanks' assets consist primarily of advances, investments and mortgage loans purchased from their members. Advances represented 68.8% of assets at December 31, 2008 and 2007. The FHLBanks' collateral requirements on advances, and their preferred creditor status, 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. Moody's expects the FHLBanks' advance lending activities to increase as many Banks are renewing their focus on this core business line while continuing to shift away from growth strategies that centered on their mortgage purchase programs.

The FHLBanks' investment portfolios consist primarily of MBS securities, chiefly Agency MBS or highly-rated private-label MBS. Moody's expected loss on the FHLBank System's private-label MBS is \$2.8 billion up from \$1.0 billion in 2008 due to continued deterioration in the residential real estate market. Holdings of non-MBS instruments consist of high-quality liquid investments such as commercial paper, federal funds, resale agreements, U.S. Government guaranteed debt and U.S. Treasury securities. Agency and government guaranteed debt purchased in the investment portfolios of all the of the FHLBanks require the highest rating, Aaa, reflecting the System's conservative credit standards. Potential losses on the FHLBank System's private-label security portfolio represent the most significant credit risk to the FHLBanks, in Moody's view.

The FHLBanks' conforming mortgage loan programs, MPF and MPP, provide members with an alternative to Fannie Mae and Freddie Mac execution. MPF and MPP programs grew rapidly since their inception in 1999 through 2004. At December 31, 2008, mortgage assets comprised 6.5% of System assets, versus 12.4% as of year-end 2004. 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

Historically, the FHLBanks' GSE status enabled them to fund their obligations at very tight spreads to U.S. Treasury securities. More recently, investor concerns regarding the U.S. housing and mortgage markets have affected the FHLBanks' debt pricing and funding. In addition, U.S. government actions in support of banks, by guaranteeing their debt issuance, have negatively impacted the FHLBanks' debt spreads. During 2008, demand for term Agency debt weakened considerably. The decline in demand for debt issuances with maturities between one-year and 30-years resulted in a dramatic widening of the spread between the FHLBanks' debt and U.S. Treasury debt. Moreover, increased demand for short-term agency debt (i.e., debt with maturities of less than one year) resulted in lower yields on the FHLBanks' discount notes. As a result, the FHLBanks' funding needs were being met primarily through the issuance of discount notes, floating-rate notes, short-term callable bonds and short-term bullet bonds during the third quarter of 2008.

In September 2008, the FHLBanks entered into a lending agreement with the U.S. Treasury, which established the (Government-sponsored Enterprise Credit Facility (GSECF), a secured lending facility, to serve as a liquidity backstop. The GSECF expires on December 31, 2009, but will remain in effect as to any loans outstanding on that date. Any funding to FHLBanks under the GSECF will be provided by the U.S. Treasury in exchange for eligible collateral consisting of advances issued by FHLBanks and MBS issued by Fannie Mae and Freddie Mac. Collateral haircuts will be determined by the U.S. Treasury. Loans under the GSECF are intended to be for short durations of between one week and one month. Interest on borrowings will be set by the U.S. Secretary of the Treasury.

The Federal Reserve announced a plan to purchase up to \$200 billion of direct debt obligations of Freddie Mac, Fannie Mae and the FHLBanks, as well as \$1.25 trillion of MBS guaranteed by Freddie Mac, Fannie Mae and Ginnie Mae. The Federal Reserve announced these actions in order to reduce the cost and increase the availability of residential mortgage credit. Moody's believes these actions reduce the FHLBanks' funding risk. The FHLBanks' access to the term debt markets improved in 2009.

The FHLBanks' internal sources of liquidity are modest. The FHLBanks are mandated by regulation to maintain a minimum of five days of liquidity without access to the capital markets (a tiny amount), though individual FHLBanks have the discretion to maintain longer periods of liquidity without access to the capital markets and generally do so. For example, several FHLBanks, such as Boston, San Francisco, Atlanta and Des Moines maintain policies to voluntarily maintain liquidity in excess of 90 days.

As of December 31, 2008, the FHLBanks had approximately \$846.3 billion in short-term debt outstanding, which includes discount notes and bonds maturing within a one year period. In total, short-term debt comprised about 67% of total debt - a very high figure. This amount increased over the past year due to the limitations with long-term funding in the Agency debt market. Liquid assets include cash, cash equivalents, interest-bearing deposits, federal funds, repurchase agreements, as well as a portfolio of trading and available-for-sale investment securities. These assets are of high quality, with the investment securities portfolio comprised of U.S. Treasury and Agency securities, state and local housing agency obligations and MBS. Liquid assets were approximately 16.5% of short-term debt as of December 31, 2008.

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.

Support and Dependence

High dependence and support levels for the FHLBank System reflect the importance of the System to its member institutions and their ability to support housing finance and community development.

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