CREDIT OPINION
2 June 2025

Update

Send Your Feedback

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Federal Home Loan Banks

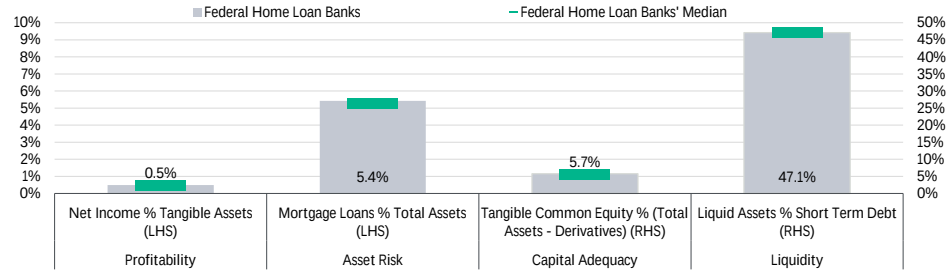
Update to credit analysis

Summary

The Federal Home Loan Banks' (FHLBank System or System) Aa1 long-term senior unsecured debt rating and Prime-1 short-term issuer rating reflect the combination of an a1 notional baseline credit assessment (BCA) and our assumptions regarding the probability of support from the US Government (Aa1 stable). Specifically, although there is no formal US Government guarantee for the Federal Home Loan Banks, the FHLBanks' systemwide debt is a joint and several liability of all eleven regional Federal Home Loan Banks, and is widely held by many US investment vehicles and financial institutions. These considerations, together with the importance of the FHLBank system as a source of liquidity and funding for US banks, drives our assumption that the probability of government support for FHLBank systemwide debt under Moody's Banks methodology framework corresponds to 'Government-Backed'.

The a1 BCA reflects the FHLBank System's strong asset quality, stable but historically modest profitability, and good capitalization. All eleven FHLBanks' individual BCAs are also a1. In late 2023, the Federal Housing Finance Agency (FHFA), which supervises and regulates the FHLBanks, published a lengthy report following its year-long review of the System. As discussed further later in this research, the report highlighted the FHFA's key priorities and potential areas of change in the months and years ahead, although it is unclear which policies might ultimately be implemented. We think the biggest immediate impact is the curtailed reliance of members, specifically banks in troubled financial condition, on emergency financing from the FHLBanks, a credit positive for the System. Nonetheless, we expect the FHLBanks will remain a reliable source of liquidity to their members in the ordinary course of business.

Exhibit 1
Key Financial Ratios [1]
As of 31 December 2024



[1] All figures and ratios are adjusted using Moody's standard adjustments as of December 2024
Source: Moody's Ratings

Credit strengths

» Joint and several liability reduces default risk of the FHLBank System's obligations

» Although narrowly focused, the FHLBanks are central liquidity providers to US banks and other members, underscoring their systemic importance

» Market access is strong because of consolidated issuance and FHLBank status as a government sponsored enterprise (GSE)

» Excellent credit quality of FHLBanks' advance, investment and mortgage portfolios minimizes asset risk, as does the System's perfected lien priority

Credit challenges

» Reliant on confidence-sensitive market funding, albeit mitigated by strong market access

» Some large single borrower concentrations at the individual FHLBank level; for the System, the top 10 advance borrowers accounted for about 25% of total advances at 31 December 2024.

Outlook

The stable outlook on the senior unsecured debt rating of the FHLBank System is in line with our stable outlook on the rating of the US Government. Any rating actions on the US Government would likely result in the FHLBank System's long-term bond rating moving in lock step with the US Government's rating.

Factors that could lead to an upgrade

An upgrade of the FHLBank System's Aa1 long-term senior unsecured debt rating would require an upgrade of our US Government rating.

With respect to the FHLBank System's a1 notional BCA, a higher BCA could occur if its aggregate advances to members represented more than 70% of assets on a consistent basis while it also maintained: 1) strong profitability, 2) a stable member risk profile focused primarily on depository members, 3) continued strong asset risk management, including modest asset-liability and operational risk, and 4) robust capital and liquidity.

Factors that could lead to a downgrade

A US Government rating downgrade would trigger a downgrade of the FHLBank System's long-term debt ratings. Barring a downgrade of the US sovereign rating, a downgrade could also be caused by a reduction in our government support assessment for the FHLBank System. For example, we could re-evaluate our government support assessment in the event that the FHLBank System's role in liquidity provision to US banks were meaningfully diminished (which we view as unlikely to occur).

The a1 notional BCA could be downgraded if the FHLBank System's aggregate advances to members as a percentage of assets decline materially on a sustained basis or if profitability, capital or liquidity materially weaken. However, should the notional BCA be downgraded to a2, our joint default analysis suggests that the Aa1 sovereign rating of the US government can still provide uplift to the Aa1 rating level for the FHLBank System's long-term debt.

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the issuer/deal page on https://ratings.moodys.com for the most updated credit rating action information and rating history.

Key indicators

Exhibit 2

Federal Home Loan Banks (Consolidated Financials) [1]

	12-24[2]	12-23[2]	12-22[2]	12-21[2]	12-20[2]	CAGR/Avg.[3]
Total Assets (USD Billion)	1,282.9	1,289.4	1,247.2	723.2	820.7	11.8[4]
Net Income / Tangible Assets (%)	0.5	0.5	0.3	0.3	0.4	0.4[5]
Liquid Assets (GSE) / Short Term Debt (%)	47.1	40.4	36.4	66.5	46.1	47.3[5]
Tangible Common Equity / (Total Assets - Derivatives) (%)	5.7	5.7	5.6	6.7	6.1	6.0[5]
Mortgage Loans / Total Assets (%)	5.4	4.8	4.5	7.7	7.7	6.0[5]

[1] All figures and ratios are adjusted using Moody's standard adjustments. [2] Basel I; US GAAP. [3] May include rounding differences because of the scale of reported amounts. [4] Compound annual growth rate (%) based on the periods for the latest accounting regime. [5] Simple average of periods for the latest accounting regime.
Sources: Moody's Ratings and company filings

Profile

Chartered by Congress in 1932 through the Federal Home Loan Bank Act, the 11 FHLBanks are federally chartered, privately capitalized GSEs whose primary mission is to provide their roughly 6,500 member financial institutions with a reliable source of liquidity to support housing finance, community lending and asset-liability management. Each FHLBank is a separately chartered cooperative owned by its respective members, with its own board of directors, management and employees. Members primarily include banks, savings institutions, insurance companies and credit unions.

The 11 FHLBanks together with the Office of Finance, which is the fiscal agent responsible for issuing and servicing the FHLBanks' debt, make up the FHLBank system. The FHLBanks and the Office of Finance operate under the supervisory and regulatory framework of the Federal Housing Finance Agency (FHFA), which was created by Congress in the Housing and Economic Recovery Act of 2008. The FHLBanks are also registered with the Securities and Exchange Commission, which requires them to file public financial statements.

Each FHLBank serves as a financial intermediary between its members and the capital markets by issuing debt, known as consolidated obligations (bonds and discount notes), and lending those proceeds to its members, primarily in the form of secured loans, known as advances. Advances are generally short-term and over-collateralized, minimizing the credit risk on these loans. In addition, the FHLBanks benefit from their statutory lien priority with respect to certain pledged member assets. The FHLBanks also purchase mortgage loans, principally 15-30 year conventional and government-guaranteed or insured fixed-rate loans. The FHLBanks also invest in securities, principally agency MBS, subject to an investment limit of three times regulatory capital without approval by the FHFA. Some FHLBanks offer correspondent services to their member institutions, including wire transfer, security safekeeping, and settlement services.

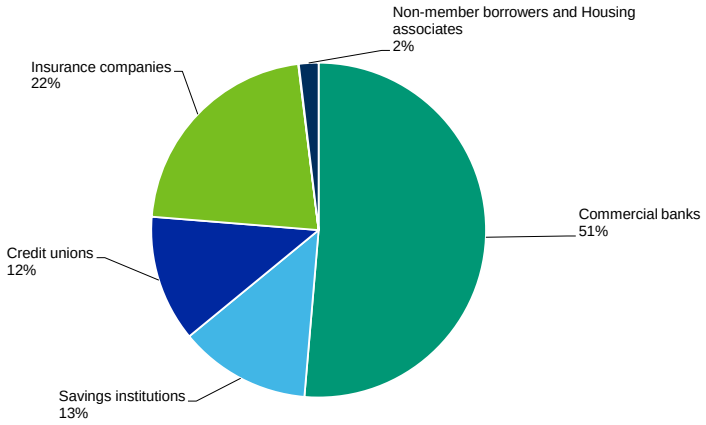
Although each FHLBank is primarily liable for its portion of systemwide consolidated obligations, each FHLBank is also jointly and severally liable with the other FHLBanks for the payment of principal and interest on all systemwide obligations. Despite our 95 – 100% expectation of government support in a default scenario, these obligations are not obligations of the US government and are not guaranteed by either the US or any federal government agency.

As of 31 December 2024, the Federal Home Loan Banks' combined balance sheet showed $1.3 trillion in total assets and $737 billion in advances, accounting for 57% of total assets.

Exhibit 3

Banks and savings institutions, insurance companies and credit unions are the FHLBank System's primary members

Principal amount of FHLBanks advances by type of borrower, 31 December 2024



Non-members include captive insurance companies that had their memberships terminated no later than 19 February 2021.
Source: Company filings, Moody's Ratings

Detailed rating considerations

Asset quality and credit risk management

The FHLBank System's asset quality remains exceptional. In particular, advances, which are over-collateralized, have not resulted in any losses since the System was formed in the 1930s. As of 31 December 2024, advances represented 57% of the System's total assets.

Most of the remainder of the System's assets are the FHLBanks' liquidity portfolios (mostly US Treasuries, fed funds sold, reverse repurchase agreements, and interest-bearing deposits) as well as their term investment portfolios (largely agency MBS and other GSE debt). As of 31 December 2024, the FHLBanks also hold about $70 billion of mortgage loans, accounting for 5% of total System assets. The System has a very small legacy non-agency MBS portfolio, with securities either unrated or rated below single-A, but it continues to shrink. No FHLBank has purchased private-label mortgage-backed securities since 2008.

The FHLBanks' pristine credit quality track record is attributable to the over-collateralization and generally short-term nature of its advances and conservative underwriting standards. However, as noted in the FHFA's late-2023 report, the FHLBanks could have better coordinated with primary regulators and the FHFA to limit access to advances by distressed institutions sooner if they had been more focused on member creditworthiness and not relied so heavily on collateral as a risk mitigant. We believe the FHLBanks are working to strengthen their credit risk management policies and practices in response.

Importantly, the FHLBanks routinely obtain a perfected security interest in pledged collateral and can therefore expect to stand ahead of other creditors of failed institutions and the FDIC because of those perfected security interests. For FDIC-insured institutions, a member's failure has historically resulted in the FDIC paying off FHLBank advances in order for it to obtain collateral free of any liens held by the FHLBank, as this has been the most expeditious and least cost resolution of the failed bank or thrift.

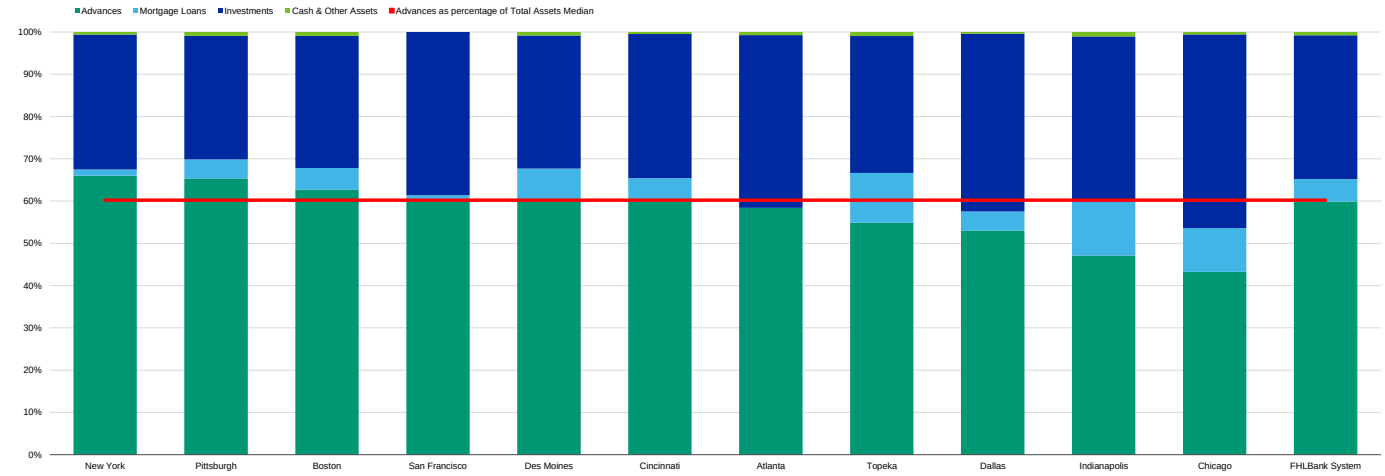
In addition, the FHLBanks do benefit to a certain degree from a statutory lien priority over 'unperfected' security interests that was established in 1987 to help ensure that they can safely make loans to members experiencing stress, but it would only be relevant in cases where no secured creditor (including a FHLBank) had perfected its security interest in the collateral through either possession of the collateral or filing a UCC-1 statement regarding the collateral. In practice, this lien priority is largely irrelevant because the FHLBanks always perfect their security interest.

We assign a high aa2 score for Asset Risk in our scorecard, as shown at the back of this report.

The exhibit below displays the asset mix of the eleven FHLBanks, which can very somewhat because of the member composition of each individual district.

Exhibit 4

Advances represent 57% of the System's total assets, slightly lower than the regional FHLBank median



As of 31 December 2024
Source: Company Filings

With respect to collateral, each FHLBank has sole credit approval power and establishes its own underwriting standards and eligible collateral within FHFA 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, such as commercial real estate loans.

The FHLBanks periodically review the collateral base margins or haircuts of the assets (loan and security types) that their member institutions pledge to secure advances. FHLBanks can increase, decrease, or maintain the margins associated with each asset type at their discretion. The haircuts to the lendable value are based on the liquidity, volatility and creditworthiness of each asset in the marketplace, as well as the health of the US banking system and overall macroeconomic environment. The eleven FHLBanks have varying practices regarding the timing and degree to which margins are adjusted. Moody's views this flexibility to dynamically monitor and adjust haircuts as credit positive for the FHLBanks.

The FHLBanks' conforming mortgage portfolio programs provide members with an alternative to Fannie Mae and Freddie Mac execution. The System's mortgage portfolio represents around 5% of total assets. The FHLBanks' mortgage assets are more susceptible to credit losses, and in particular, carry heightened operational complexity relative to the FHLBanks' core advance business. However, the mortgage portfolio program's credit risk performance has been very good to date, reflecting the quality of mortgage assets purchased and credit enhancements of the program.

Capital adequacy

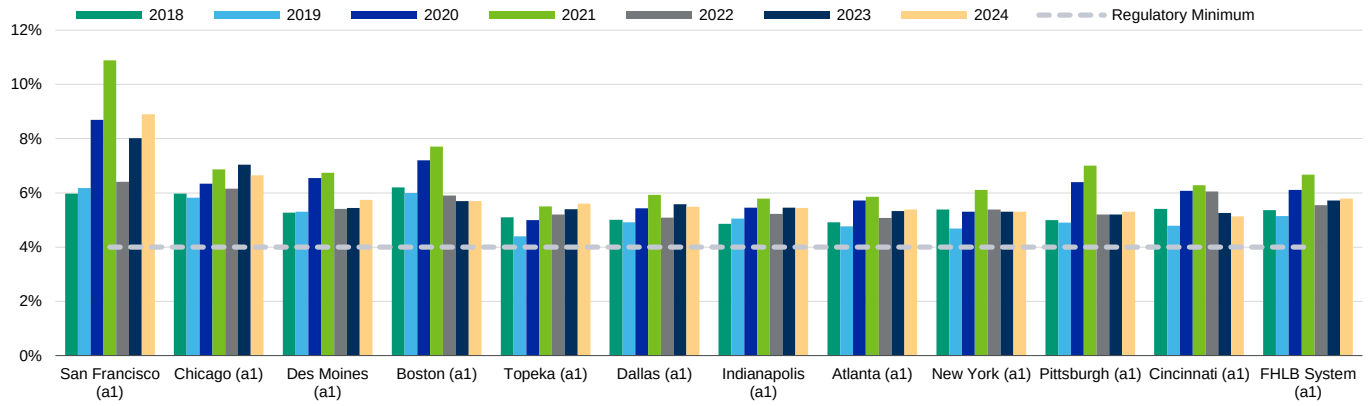
Each FHLBank is required by legislation to maintain minimum regulatory capital of 4% of its total assets. As of 31 December 2024, the capital ratio of the FHLBank System was 5.79%, up slightly from 5.72% at year-end 2023. At the same date, the regulatory capital ratios of the eleven regional FHLBanks ranged from 5.13% at FHLBank Cincinnati to 8.90% at FHLBank San Francisco.

Capital ratios are largely stable even during periods of significant advance growth. This is so because when a member needs to access advances, it must not only pledge high-quality collateral, but also purchase additional activity-based stock in proportion to their borrowings. As a result, the dollar amount of capital automatically increases when advance activity is high. The aa1 assigned score for Capital in our scorecard incorporates our estimate of the FHLBank System's TCE ratio on a risk-weighted basis, which is strong,

principally because advances, which account for 57% of the FHLBank System's assets and have not resulted in a single loss during the System's 90-year+ history.

Exhibit 5

Low advance levels at year-end 2020 and 2021 temporarily boosted regulatory capital; although capital ratios have since declined, they remain comfortably above regulatory requirements



FHLBanks' total regulatory capital ratio, Q4 2018 - Q4 2024
Source: Moody's Ratings; Company Filings

Profitability

The FHLBank System's low but consistent profitability reflects the primarily low risk profile of its asset base. For 2024, the FHLBank System's Moody's-calculated net income to tangible assets was 0.5%, slightly above its level over the past several years. The return on average assets, a similar measure, of the eleven regional FHLBanks ranged from 0.42% at FHLBank Boston to 0.58% at FHLBank Dallas. The FHLBank System's profitability measures are generally weaker than those of US commercial banks, reflecting distinctions between the relative riskiness of their asset profiles. We assign a baa1 score for Profitability, which balances the System's low absolute level of earnings with its low earnings volatility.

Liquidity and Funding

The FHLBank System's GSE status provides it with consistent and stable access to the debt markets and informs the baa1 assigned score for Funding Structure in our scorecard. The FHLBanks' internal sources of liquidity are modest, but have strengthened as a result of regulation.

Specifically, FHFA, the regulator of the FHLBanks, implemented liquidity guidance several years ago that established requirements for the FHLBanks' base case liquidity and added funding gap metrics for three-month and one-year maturity horizons. In addition, the guidance addressed liquidity stress testing and contingency funding plans. We expect that all FHLBanks will remain in compliance with regulatory liquidity requirements and assign a baa1 score for Liquid Resources.

In times of severe credit market disruption, the System can be impacted, notwithstanding its GSE status. For example, in the March 2020 market disruption that resulted from the spread of the pandemic, longer-dated bond issuance was challenging as investors preferred short-term instruments. Still, the FHLBank System enjoyed market access throughout, which validated our view of its funding resilience. Moreover, following the failures of several regional banks in the first half of 2023, with coordination among the FHFA and the FHLBanks, funded FHLBank advance volume totaled $676 billion (largely in overnight issuance) in the week beginning 13 March 2023, which was the largest single week of advance volume in the FHLBanks' history and indicative of its ability raise funds in challenging environments.

Role as a provider of liquidity to US financial institutions

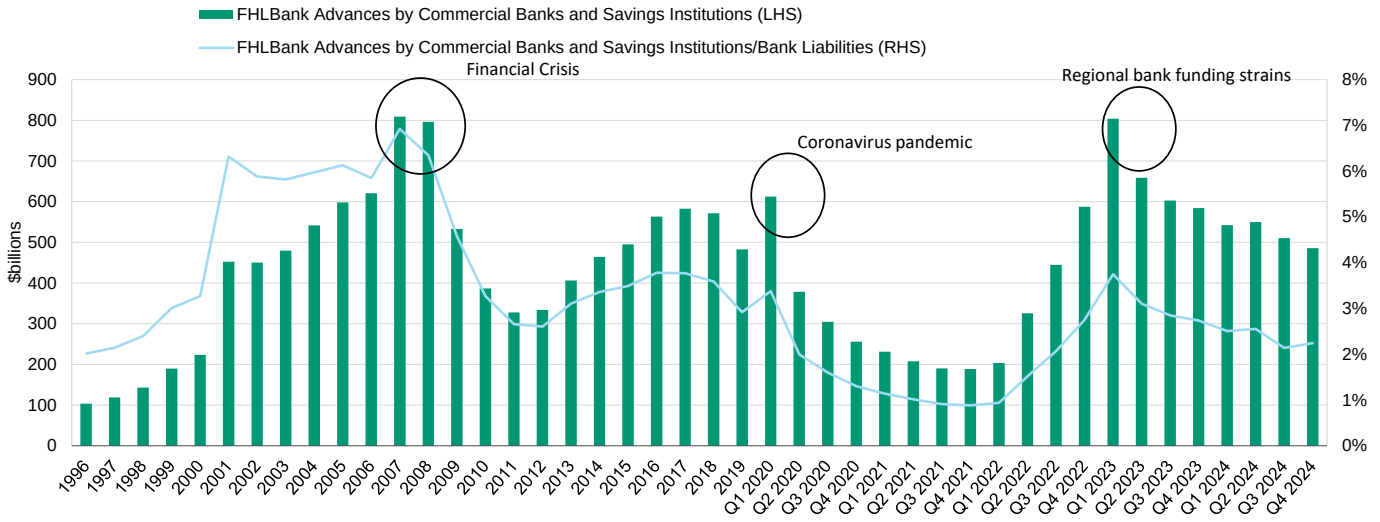
The FHLBanks' demonstrated ability to access funding throughout the cycle underpins their importance to the financial system. As shown below, advances to regulated depository members spiked several times in recent years: at the height of the global financial crisis in 2008/9, in early 2020 at the beginning of the pandemic, throughout 2022 as banks sought alternative funding given both declines in their deposit balances and rising unrealized losses in their AFS securities portfolios, which increased their reluctance to sell those securities, and most

recently, in March 2023 when there was a scramble for liquidity in the wake of multiple regional bank failures and acute deposit outflows at select institutions. Advances have since come down from their highs. All of these episodes are reminders of the FHLBank System's important role as a liquidity provider to the financial system in times of stress.

Exhibit 6

FHLB advances have proven to be a reliable source of bank funding, especially during times of crisis

Systemwide advances to regulated depository members 1996 - 2024



Source: FDIC

FHFA review and report

As noted above, in late 2023, the FHFA published a report that indicated three key priorities for the FHLBank System:

1) strengthening the FHLBanks' focus on housing goals, including affordable housing;

2) shifting the FHLBanks away from providing emergency funding for commercial banks, particularly those in strained financial condition, while also remaining a stable and reliable source of liquidity for members in the ordinary course of business; and

3) increasing the FHLBanks' efficiency and strengthening their governance.

The biggest immediate impact of the FHFA agenda would be to curtail the reliance of members, specifically banks in troubled financial condition, on emergency financing from the FHLBanks. However, we expect the FHLBanks will remain a reliable source of liquidity to their members in the ordinary course of business, just as they are today.

The FHFA's report raised a number of possible areas of change, some of which could be enacted through its ongoing supervision of the FHLBanks, some through more formal rule-making and still others that would require Congressional action in the months and years ahead. A key take-away is that although some of the proposed changes will require rule-making and/or statutory changes, which can be lengthy processes, the FHFA has the ability to implement other changes through its current supervisory process. For example, we believe access to FHLBank funding for banks in a weakened financial condition can, and likely will, be tightened under the existing regulatory oversight regime. That said, we are monitoring official sector statements regarding the FHLBanks' role in liquidity provision to banks and note that they emphasize the discount window for banks' emergency liquidity.

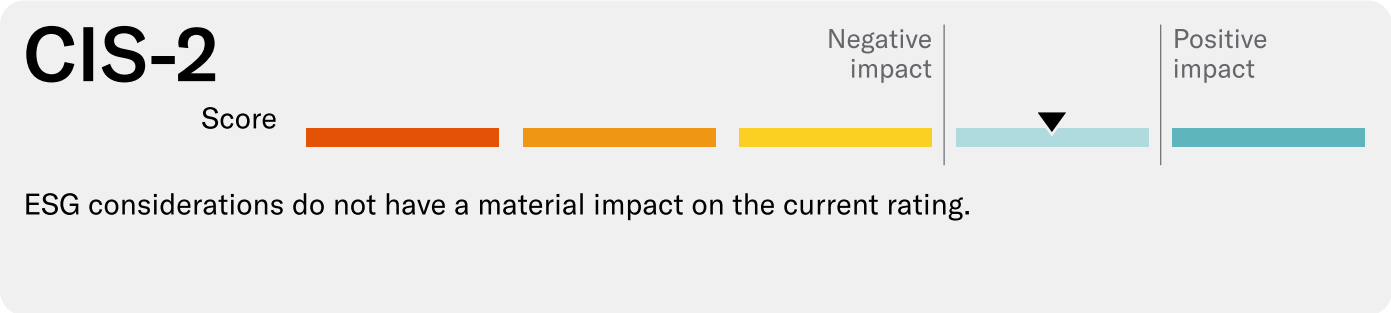
Additionally the change in the US administration may slow, alter or halt contemplated or proposed changes, a process we will watch. For example, in an April 2025 speech, Secretary of the Treasury Scott Bessent commented that "we will revisit the role of the discount window and the Federal Home Loan Banks, including whether there are opportunities to clarify the role of these funding sources in internal liquidity stress testing and the supervision of banks' contingency funding plans."

We do not currently expect a material change in the FHLBanks' creditworthiness, either on a standalone basis or of their Aa1-rated consolidated debt obligations. The FHLBanks' special role as providers of funding to US banks underpins our assessment of a 95 – 100% likelihood of government support for their consolidated debt obligations. As long as the FHLBanks' role in US banking system funding remains consequential, we will likely continue to ascribe the same government support assumptions in our rating of the consolidated debt obligations.

ESG considerations

Federal Home Loan Banks' ESG credit impact score is CIS-2

Exhibit 7
ESG credit impact score



Source: Moody's Ratings

The Federal Home Loan Bank System's **CIS-2** indicates that ESG considerations have no material impact on the current ratings.

Exhibit 8
ESG issuer profile scores



Source: Moody's Ratings

Environmental

The Federal Home Loan Bank System faces low environmental risks. Its combined loan portfolio consists of wholesale advances to banks, insurance companies and credit unions. Although most of its bank customers face moderate carbon transition risks through their own loan portfolios, and many of its insurance companies face moderate physical climate risks through their client exposures, the System is only indirectly exposed to these risks and its advance portfolio is diversified.

Social

The Federal Home Loan Bank System faces low social risks. Its clients are member institutions, such as banks, insurance companies and credit unions, and minimal interaction with retail clients mitigates the risks related to customer relations and demographic and societal trends. While the System also faces high cyber risk similar to its banking peers, it faces lower risks of customer relations fallout than a typical bank because of its institutional client base.

Governance

The Federal Home Loan Bank System faces low governance risks. None of the System's banks has ever reported credit losses on advances, their primary product, highlighting strong financial strategy and risk management, though as noted in the FHFA's report, the FHLBanks could be more focused on member creditworthiness and not rely so heavily on collateral as a risk mitigant. The System's strategy and asset composition is based on its Congressional mission and reinforced by its regulators. Each of the eleven FHLBanks is a separately chartered cooperative owned by its respective members, with its own board of directors, management and employees. The System's mandate, regulatory oversight and policies limit the ability of any bank's board members to act against the interest of bondholders, which mitigates the potential conflict of interest resulting from board members being executives of its borrowers.

ESG Issuer Profile Scores and Credit Impact Scores for the rated entity/transaction are available on Moodys.com. In order to view the latest scores, please click here to go to the landing page for the entity/transaction on MDC and view the ESG Scores section.

US banking system's Strong+ Macro Profile

The US banking system's Strong + macro profile score considers the US' (Aa1 stable) exceptional economic strength, high institutions and governance strength, and extraordinary funding capacity (supported by the unique and central roles of the US dollar and Treasury bond market in the global financial system), balanced with a level of susceptibility to event risk associated with entrenched political polarization. The score also incorporates the negative effects from the high level of private-sector debt and continuing challenges from the large and long-established shadow banking sector, including private credit.

Support and Structural Considerations

Loss Given Failure (LGF) Analysis and Government Support Considerations

In the event that the FHLBank System were to require support, we do not believe there is an existing regulatory framework in place that provides a clear understanding of the impact of a resolution on creditors. Therefore, we do not apply the Advanced LGF approach to the FHLBank System as we do for US banks subject to an FDIC resolution, which we consider to be an operational resolution regime. Instead we apply the Basic LGF approach.

Under that approach, the rating on senior unsecured systemwide debt is Aa1, or three notches above the BCA. This reflects our assumptions about the probability of government support for FHLBank systemwide debt. Specifically, we consider the likelihood of support to be 'Government-Backed', corresponding to a 95 – 100% probability of government support. For the individual deposit ratings assigned to each of the eleven regional FHLBanks, we assume a 'Very High' probability of government support, corresponding to a 70 – 95% probability.

Methodology and scorecard

Our BCA scorecard is designed to capture, express and explain in summary form our Rating Committee's judgment. When read in conjunction with our research, a fulsome presentation of our judgment is expressed. As a result, the output of our BCA scorecard may materially differ from that suggested by raw data alone (though it has been calibrated to avoid the frequent need for strong divergence). The BCA scorecard output and the individual scores are discussed in rating committees and may be adjusted up or down to reflect conditions specific to each rated entity.

Note that we do not typically formally assign BCAs to non-bank entities but we derive a notional a1 BCA for the Federal Home Loan Bank System based on its combined fundamentals as if it were a single entity.

Exhibit 9

Rating Factors

Macro Factors		
Weighted Macro Profile	**Strong +**	**100%**

Factor	Historic Ratio	Initial Score	Expected Trend	Assigned Score	Key driver #1	Key driver #2
Solvency						
Asset Risk						
Problem Loans / Gross Loans	0.0%	aa1	↔	aa2	Long-run loss performance	
Capital						
Tangible Common Equity / Risk Weighted Assets (Basel I)				aa1	Risk-weighted capitalisation	
Profitability						
Net Income / Tangible Assets	0.4%	ba1	↔	baa1	Earnings quality	
Combined Solvency Score				aa3		
Liquidity						
Funding Structure						
Market Funds / Tangible Banking Assets	92.3%	caa3	↔	baa1	Market funding quality	
Liquid Resources						
Liquid Banking Assets / Tangible Banking Assets	31.6%	a2	↔	baa1	Expected trend	
Combined Liquidity Score		ba3		baa1		
Financial Profile		--		a1		
Qualitative Adjustments				Adjustment		
Business Diversification				0		
Opacity and Complexity				0		
Corporate Behavior				0		
Total Qualitative Adjustments				0		
Sovereign or Affiliate constraint				Aa1		
BCA Scorecard-indicated Outcome - Range				aa3 - a2		
Assigned BCA				a1		
Affiliate Support notching				0		
Adjusted BCA				a1		

Balance Sheet	in-scope (USD Million)	% in-scope	at-failure (USD Million)	% at-failure
Other liabilities	1,230,068	95.9%	1,231,501	96.0%
Deposits	14,330	1.1%	12,897	1.0%
Preferred deposits	14,330	1.1%	12,897	1.0%
Equity	38,487	3.0%	38,487	3.0%
Total Tangible Banking Assets	1,282,885	100.0%	1,282,885	100.0%

Debt Class	De Jure waterfall		De Facto waterfall		Notching		LGF Notching Guidance vs. Adjusted BCA	Assigned LGF notching	Additional Notching	Preliminary Rating Assessment
	Instrument volume + subordination	Sub-ordination	Instrument volume + subordination	Sub-ordination	De Jure	De Facto				
Senior unsecured bank debt	3.0%	3.0%	3.0%	3.0%	na	na	0	0	0	a1

Instrument Class	Loss Given Failure notching	Additional notching	Preliminary Rating Assessment	Government Support notching	Local Currency Rating	Foreign Currency Rating
Senior unsecured bank debt	0	0	a1	-	Aa1	

[1] Where dashes are shown for a particular factor (or sub-factor), the score is based on non-public information.

Source: Moody's Ratings

Ratings

Exhibit 10

Category	Moody's Rating
FEDERAL HOME LOAN BANKS	
Outlook	Stable
Senior Unsecured	Aa1
ST Issuer Rating	P-1

Source: Moody's Ratings

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