Statements contained in this presentation, including statements describing the objectives, projections, estimates, or predictions of the future of the FHLBanks and the Office of Finance, may be “forward-looking statements.” These statements may use forward-looking terminology, such as "anticipates," "believes," "could," "estimates," "expects," "intends," "projects," "plans," "may," "should," "will," "would," "likely," "possible," or their negatives or other variations on these terms. Investors should note that forward-looking statements, by their nature, involve risks or uncertainties. Therefore, the actual results could differ materially from those expressed or implied in these forward-looking statements or could affect the extent to which a particular objective, projection, estimate, or prediction is realized.

These forward-looking statements involve risks and uncertainties including, but not limited to, the following: changes in the general economy; changes in interest rates and housing prices; size and volatility of the residential mortgage market; disruptions in the credit and debt markets and the effect on the FHLBanks’ funding costs, sources, and availability; levels and volatility of market prices, rates, and indices, including those that could affect the value of investments or collateral held by the FHLBanks as security; monetary and fiscal policies; changes in liquidity in the financial markets; political events, including legislative, regulatory, judicial, or other developments, that affect the FHLBanks, their members, counterparties, dealers of consolidated obligations, or investors in consolidated obligations (including legislative, regulatory or other actions recommended, proposed or implemented as a result of the FHFA’s comprehensive review of the FHLBank System); natural disasters, pandemics or other widespread health emergencies, terrorist attacks, civil unrest, geopolitical instability or conflicts, trade disruptions, economic or other sanctions, or other unanticipated or catastrophic events; demand for FHLBank advances; competitive forces, including other sources of funding available to FHLBank members; loss of members and repayment of advances made to those members due to institutional failures, changes in the financial health of members or other factors; changes in investor demand for consolidated obligations, including those resulting from any modification of the credit ratings of the U.S. government or the FHLBanks; the ability to introduce new FHLBank products and services and successfully manage the risks associated with those products and services; and the pace of technological change and the ability to develop, secure, and support technology and information systems to effectively manage the risks, including information security.

Investors are encouraged to consider these and other risks and uncertainties that are discussed in periodic combined financial reports posted on the Office of Finance web site, www.fhlb-of.com, and in reports filed by each FHLBank with the U. S. Securities and Exchange Commission. None of the FHLBanks or the Office of Finance undertakes any obligation to update or revise any forward-looking statements contained in this presentation, whether as a result of new information, future events, changed circumstances, or any other reason.
The FHLBanks are reliable liquidity providers through a fully-collateralized lending model that has helped shield the FHLBanks from sustaining credit losses on advances since their creation in 1932.

Cooperative member-provided capital base is designed to expand and contract in response to member borrowing needs.

The FHLBanks maintain issuance programs designed to meet changing investor needs.
The 11 FHLBanks are government-sponsored enterprises (GSEs) organized as cooperatives under an act of Congress (Federal Home Loan Bank Act of 1932).

FHLBanks serve the general public by providing readily available, low-cost funding to approximately 6,500 members, thereby increasing the availability of credit for residential mortgage lending and investment in housing and community development.

FHLBanks fund their operations principally through the sale of debt securities through the Office of Finance.
FHLBanks Provide Liquidity

Membership is voluntary and generally limited to:
- Federally-insured depository institutions
- Insurance companies
- Community Development Financial Institutions

All senior unsecured debt securities issued through the Office of Finance (“Consolidated Obligations”) are the **joint and several** obligations of all FHLBanks.

Current ratings:
- S&P: AA+ / A-1+ / stable outlook
- Moody’s: Aaa / P-1 / negative outlook
## Combined Financial Highlights

<table>
<thead>
<tr>
<th>($ in billions)</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
<th>3Q2023</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advances (Secured Loans)</td>
<td>$642</td>
<td>$423</td>
<td>$351</td>
<td>$819</td>
<td>$827</td>
</tr>
<tr>
<td>Cash &amp; Liquidity Investments(^1)</td>
<td>207</td>
<td>175</td>
<td>166</td>
<td>207</td>
<td>226</td>
</tr>
<tr>
<td>Long Term Investment Securities(^2)</td>
<td>173</td>
<td>156</td>
<td>146</td>
<td>157</td>
<td>187</td>
</tr>
<tr>
<td>Mortgage Loans Held for Portfolio(^3)</td>
<td>72</td>
<td>63</td>
<td>55</td>
<td>56</td>
<td>60</td>
</tr>
<tr>
<td><strong>Total Assets</strong></td>
<td>$1,099</td>
<td>$821</td>
<td>$723</td>
<td>$1,247</td>
<td>$1,309</td>
</tr>
<tr>
<td>Retained Earnings</td>
<td>$20.6</td>
<td>$22.0</td>
<td>$22.8</td>
<td>$24.6</td>
<td>$27.2</td>
</tr>
<tr>
<td>Total Capital (GAAP)(^4)</td>
<td>55</td>
<td>50</td>
<td>49</td>
<td>68</td>
<td>71</td>
</tr>
<tr>
<td>Regulatory Capital(^4)</td>
<td>56</td>
<td>50</td>
<td>48</td>
<td>69</td>
<td>74</td>
</tr>
<tr>
<td><strong>Regulatory Capital Ratio(^5)</strong></td>
<td>5.14%</td>
<td>6.11%</td>
<td>6.67%</td>
<td>5.55%</td>
<td>5.64%</td>
</tr>
<tr>
<td><strong>Net Income</strong></td>
<td>$3.2</td>
<td>$2.8</td>
<td>$1.8</td>
<td>$3.2</td>
<td>$5.1</td>
</tr>
</tbody>
</table>

1. This includes cash, CDs, fed funds sold, securities purchased under agreements to resell, interest-bearing deposits, and U.S. Treasury Obligations (see Slide 12).
2. See Slide 13 for more information.
4. The difference between total capital (GAAP) and regulatory capital relates primarily to accumulated other comprehensive income (loss), which is excluded from regulatory capital, and mandatorily redeemable capital stock, which is included in regulatory capital.
5. Each FHLBank maintains a minimum 4% regulatory capital-to-asset ratio.

Source: Combined Financial Reports – subject to rounding
The capital base of the FHLBanks is comprised of member and activity-based capital. Each FHLBank is required to hold a minimum of 4% regulatory capital, in addition to risk-based and leverage capital requirements. (See the Capital footnote in the Combined Financial Report for more information.)

- Members are required to capitalize all advances, typically at 4.0% to 5.0% of principal borrowed.
- FHLBanks may repurchase capital stock once the associated advances have been repaid.

Controlled Scalability: FHLBanks have the ability to hold capital for up to 5 years.

- FHLBanks can manage the traditionally variable capital base to preserve capital during periods of economic stress.

FHFA-ordered prompt corrective action for undercapitalized FHLBanks may include:

- Development and implementation of capital restoration plans, risk management controls, and/or placing limits on dividends and stock redemptions, and
- Increasing capital requirements or temporary surcharges in excess of statutory or regulatory minimums

The capital surplus reflects the difference between the minimum required regulatory capital ratio and the regulatory capital ratio. This surplus can be used to strengthen the capital base of the FHLBanks. The FHFA has ordered prompt corrective action for undercapitalized FHLBanks, which may include:

- Development and implementation of capital restoration plans, risk management controls, and/or placing limits on dividends and stock redemptions, and
- Increasing capital requirements or temporary surcharges in excess of statutory or regulatory minimums.
Advances - Reliable Liquidity Source

No Credit Losses on Advances in FHLBank System History

Advances by Maturity

Advances by Structure

Source: Combined Financial Reports – based on par value
Collateral Securing Advances

At 3Q2023, 134 Borrowers Had Advances Outstanding of at Least $1 Billion, Representing $598 Billion, or 72%, of Total Advances

Total Credit Exposure vs. Collateral Outstanding

- Borrowers with ≥ $1B outstanding: $707 billion
- All Borrowers: $1,016 billion
- Collateral Outstanding: $3,592 billion
- Collateralization Ratio: 3.5

Type of Collateral Securing Advances and Other Credit Products Outstanding

- Single-family mortgage loans: 49.4%
- Commercial real estate loans: 19.9%
- Multifamily mortgage loans: 10.0%
- Agency MBS/CMO: 7.9%
- HEL/HELOC(1): 4.0%
- CMBS: 1.2%
- Agency debt: 0.6%
- Other: 7.0%

1. Home equity loans and lines of credit

Source: 3Q2023 Combined Financial Report - Subject to rounding
## Collateral Lending Values

<table>
<thead>
<tr>
<th>Collateral Type</th>
<th>Average Effective Lending Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Blanket Lien</td>
</tr>
<tr>
<td>Single-family mortgage loans</td>
<td>75%</td>
</tr>
<tr>
<td>Multifamily mortgage loans</td>
<td>69%</td>
</tr>
<tr>
<td>Other U.S. government-guaranteed loans</td>
<td>78%</td>
</tr>
<tr>
<td>Home equity loans and lines of credit</td>
<td>60%</td>
</tr>
<tr>
<td>Community Financial Institutions (CFI) loans</td>
<td>56%</td>
</tr>
<tr>
<td>Commercial real estate loans</td>
<td>67%</td>
</tr>
<tr>
<td>Other real estate loans</td>
<td>45%</td>
</tr>
<tr>
<td>Cash and U.S. Obligations</td>
<td>n/a</td>
</tr>
<tr>
<td>State and local government securities</td>
<td>n/a</td>
</tr>
<tr>
<td>Municipal debt</td>
<td>n/a</td>
</tr>
<tr>
<td>U.S. agency securities (excluding MBS)</td>
<td>n/a</td>
</tr>
<tr>
<td>U.S. agency MBS and collateralized mortgage obligations (CMOs)</td>
<td>n/a</td>
</tr>
<tr>
<td>Private-label MBS and CMOs</td>
<td>n/a</td>
</tr>
<tr>
<td>CFI securities(1)</td>
<td>n/a</td>
</tr>
<tr>
<td>Commercial MBS</td>
<td>n/a</td>
</tr>
<tr>
<td>Other securities</td>
<td>n/a</td>
</tr>
<tr>
<td>Student loan securities</td>
<td>n/a</td>
</tr>
</tbody>
</table>

(1) Community Financial Institution – Total assets capped at $1.42 billion as of 1/1/2023 by FHFA and adjusted annually for inflation.

Source: 2022 Annual Combined Financial Report
At 3Q2023, $7.2 Billion Net Credit Exposure to Counterparties on $1,069.1 Billion Notional Derivative Counterparty Credit Exposure

- The FHLBanks manage counterparty credit risk through credit analysis, collateral requirements, and adherence to regulations and policies.

- Collateral agreements are required on all derivatives and typically establish collateral delivery thresholds.

- Counterparty risk is partially mitigated by use of master netting agreements.

- Collateral agreements may contain provisions that require posting of additional collateral if there is a deterioration in a counterparty's credit rating.

- The FHLBanks, as required under Dodd-Frank legislation, clear certain types of derivative transactions through derivative clearing houses.

- Interest rate swaps comprised 99% of the FHLBanks' derivative instruments, based on notional value as of 3Q2023. Other derivatives allowed by regulation include futures and forwards, swaptions, caps and floors and mortgage delivery commitments. (See Derivative and Hedging Activities for more details.)
Cash and Liquidity Investments

FHLBanks Maintain Contingent Liquidity

- FHFA requires FHLBanks to hold positive cash flow, including certain U.S. Treasuries and short term investments, assuming no access to capital markets and assuming renewal of all maturing advances for a period of between 10 and 30 calendar days.
  - FHLBanks are also required to maintain a liquidity reserve of between 1% and 20% of outstanding letters of credit commitments.

- FHLBanks generally maintain additional liquidity beyond regulatory guidelines to meet obligations in the event of longer-term disruptions to the debt markets.

Liquidity Investments at 3Q2023

$226 billion

- Fed Funds Sold 38.5%
- Cash 0.3%
- US Treasuries 18.1%
- Reverse Repo 30.6%
- Interest Bearing Deposits(2) 12.4%

1. Liquidity investments presented herein include all U.S. Treasury securities; however, FHFA regulations state that only those securities classified as trading and AFS (for accounting purposes) and with remaining maturity less than 10 years may be considered for contingent liquidity. (See Investments for more details.)
2. Depositors may include FHLBank members.

Source: 3Q2023 Combined Financial Report - Based on carrying value and subject to rounding
FHLBanks Invest Primarily In Highly-Rated Securities

- FHLBanks maintain long-term investment portfolios to enhance interest income, cover operating expenses and bolster capacity to meet affordable housing commitments (see Investments for more details).
  - At 3Q2023, approximately 99% of long-term investment securities were rated single-A or higher.
  - Regulation limits MBS investments to 300% of capital\(^{(1)}\).
  - FHLBank policies generally permit purchase of triple-A rated MBS only.

1. Current regulatory policy prohibits an FHLBank from purchasing MBS if its investment exceeds 300% of previous month-end regulatory capital on the day it purchases the securities.
2. Investment securities excluding U.S. Treasury securities presented as liquidity investments.
3. Includes non-agency RMBS, home equity ABS, & MH loan ABS.
4. Primarily consists of state/local housing agency obligations, SBA obligations, and GNMA securities.
5. Federal Family Education Loan Program ABS

Long-Term Investments at 3Q2023\(^{(2)}\)

\[\text{\$187 billion}\]

- GSE/TVA Debt: 5.7%
- FFELP ABS\(^{(5)}\): 1.1%
- Other\(^{(4)}\): 10.3%
- PLMBS\(^{(3)}\): 0.8%
- Agency RMBS/CMBS: 82.2%
Acquired Mortgage Assets

- **MPF® (Mortgage Partnership Finance) and MPP (Mortgage Purchase Program)** were created as alternatives to traditional GSE guarantee programs (see [Mortgage Loans](#) for more information).
  - Members **retain** a portion of the credit risk and **receive** fees for doing so, while transferring the interest rate and funding risk to the FHLBanks.

- **Consist of 15- to 30-yr conventional conforming and government-guaranteed fixed-rate mortgage loans secured by 1 to 4 family residential mortgages – no ARMs.**
  - Loans credit-enhanced by members to FHLBank-determined "AMA investment grade."

- **Additional programs provide a conduit that enables members to leverage their FHLBank membership to transfer credit risk and gain access to liquidity for a variety of other loans.**
  - Programs are available for non-agency jumbo, agency conforming, and government guaranteed loans.

---

**Mortgage Loans Held for Portfolio**

($ in billions)

Mortgage Loans Held for Portfolio represent approximately 4.6% of total assets at 3Q2023

Source: 3Q2023 Combined Financial Reports and subject to rounding
**Debt Issuance Programs**

FHLBanks Use Multiple Debt Programs and Issuance Methods

<table>
<thead>
<tr>
<th>Debt Program</th>
<th>Issuance Methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discount Notes</td>
<td>Window: Active window program with maturity and settlement flexibility</td>
</tr>
<tr>
<td></td>
<td>Auction: Twice weekly offerings of 4-, 8-, 13-, 17-, and 26-week maturities</td>
</tr>
<tr>
<td>Medium-Term Notes (MTNs)</td>
<td>Reverse Inquiry: Reverse inquiry method utilized for callables, fixed-rate non-callables, floaters, and structured notes</td>
</tr>
<tr>
<td></td>
<td>Auction: Auction method used to distribute fixed-rate non-callables (TAPs) and American option callable securities</td>
</tr>
<tr>
<td>SOFR-linked Floating Rate Notes (FRNs)</td>
<td>Window: Window method used to distribute SOFR-linked floating rate notes</td>
</tr>
<tr>
<td>Globals</td>
<td>Syndication: Strategic calendar issuance of liquid “benchmark” size bullets</td>
</tr>
</tbody>
</table>
Debt Profile Reflects Member and Investor Demand

**Total Debt Outstanding (1)**

($ in billions)

<table>
<thead>
<tr>
<th>Year</th>
<th>Debt Outstanding</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>$1,026</td>
</tr>
<tr>
<td>2020</td>
<td>$747</td>
</tr>
<tr>
<td>2021</td>
<td>$653</td>
</tr>
<tr>
<td>2022</td>
<td>$1,182</td>
</tr>
<tr>
<td>2023</td>
<td>$1,202</td>
</tr>
</tbody>
</table>

**Bond Issuance (2)**

($ in billions)

<table>
<thead>
<tr>
<th>Year</th>
<th>Issuance</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>$614</td>
</tr>
<tr>
<td>2020</td>
<td>$505</td>
</tr>
<tr>
<td>2021</td>
<td>$430</td>
</tr>
<tr>
<td>2022</td>
<td>$588</td>
</tr>
<tr>
<td>2023</td>
<td>$1,050</td>
</tr>
</tbody>
</table>

Source: FHLBanks Office of Finance - by settlement date - as of 12/31/2023 and subject to rounding

1. See [www.fhlb-of.com](http://www.fhlb-of.com) for Archival Debt Statistics
2. Coupon debt only – excludes discount notes
Term Debt Refunding

Maturity Profile of Outstanding Bonds

($ in billions)

Historical Bond Redemption Activity

($ in billions)

<table>
<thead>
<tr>
<th></th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
<th>2023</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calls / Retirements</td>
<td>108</td>
<td>115</td>
<td>47</td>
<td>8</td>
<td>37</td>
</tr>
<tr>
<td>Maturities</td>
<td>489</td>
<td>539</td>
<td>413</td>
<td>310</td>
<td>812</td>
</tr>
</tbody>
</table>

Source: FHLBanks Office of Finance - by settlement date - as of 12/31/2023 and subject to rounding
FHLBank Debt Has Consistently Met Investors’ Needs for Safety and Liquidity

2a-7 Eligible Coupon Debt Outstanding

($ in billions)

Short-Term Coupon Debt Issuance

($ in billions)

Source: FHLBanks Office of Finance - by settlement date - as of 12/31/2023 and subject to rounding

FHLBanks Office of Finance
Discount Note Program

Discount Notes Outstanding

Discount Note Issuance

Source: FHLBanks Office of Finance - by settlement date - as of 12/31/2023 and subject to rounding
Floating Rate Note Program

- FHLBanks have issued FRNs indexed to various indices, with the vast majority of issuance linked to SOFR since 2020. $1,580 billion in SOFR-indexed FRNs have been issued since the inception of the program as part of the FHLBanks' transition away from LIBOR.

- SOFR-indexed FRN maturities have ranged from 3 months to 6.5 years, with the largest concentration in maturities of 2-years or less, and may be issued in both callable and non-callable structures.

- SOFR-indexed FRNs are primarily issued via a window process, allowing for reverse inquiry by investors and dealers, but the FHLBank System may also use a syndication format.

- The last of the FHLBanks' FRNs indexed to LIBOR matured in January 2022.

Source: FHLBanks Office of Finance - by settlement date - as of 12/31/2023 and subject to rounding
Mandated Global Bond Program

- The maturity, size, and dealer syndicate are announced exclusively on predetermined dates.
- A complete Mandated Global issuance calendar is available at www.fhlb-of.com.
- FHLBanks may issue one or more new Globals and/or one or more re-openings on announcement dates.
- 2- through 30-year maturities are a minimum of $1 billion for new issues and $250 million for re-openings.

### Historical Global Issuance

<table>
<thead>
<tr>
<th></th>
<th>2-yr</th>
<th>3-yr</th>
<th>5-yr</th>
<th>10-yr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Issuance</td>
<td>$21.00</td>
<td>$3.90</td>
<td>$6.25</td>
<td>$1.15</td>
</tr>
<tr>
<td># of New Issues</td>
<td>16</td>
<td>2</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>
Mandated Global Bond Investor Distribution

Mandated Global Issues - January 2023 through December 2023

By Region

- US - 80.6%
- Asia - 9.5%
- Europe - 1.9%
- Other - 8.0%

By Investor Type

- Fund Mgrs - 48.2%
- Central Banks - 16.1%
- Banks - 7.1%
- State / Local - 19.2%
- Ins / Pension - 2.2%
- Other - 7.1%

“Other” may include investors not specified by dealers

Source: FHLBanks Office of Finance - by settlement date - as of 12/31/2023 and subject to rounding
The TAP program is designed to coordinate and standardize the issuance of fixed-rate, non-callable debt.

New TAP securities are created on a quarterly basis and then re-opened via daily auction throughout a 90-day cycle.

TAPs typically offer liquidity-adjusted yield over comparable FHLBank Globals and other agency benchmarks.

TAPs are available to investors through a 20+ member dealer bidding group.

Source: FHLBanks Office of Finance - by trade date - as of 12/31/2023 and subject to rounding
Callable Bond Program

- Callable debt securities are an essential component of FHLBank funding, supporting both advances and investment portfolios.
- Callables offer enhanced yield over comparable fixed-rate non-callable bonds and allow investors to express views on volatility and/or the yield curve without sacrificing credit quality or utilizing derivatives.
- Flexible reverse inquiry process delivers a high degree of customization.
- Callables with American-style calls are auctioned through a 20+ member dealer bidding group.

Callable Issuance by Lockout

- >1 Year - 5.7%
- 6-12 Months - 5.3%
- 3-6 Months - 36.4%
- <3 Months - 52.6%

Callable Issuance by Option Type

- Bermudan - 81.3%
- Multi-European - 3.0%
- American - 2.0%
- European - 13.6%
- Canary - 0.1%

Source: FHLBanks Office of Finance - by settlement date - 1/1/2023 to 12/31/2023 and subject to rounding
Conclusion

- **Well Capitalized**: Self-capitalizing business model and capital preservation authority work together to provide a stable capital base.

- **Fully Collateralized**: Fully-collateralized lending model has helped shield the FHLBanks from sustaining credit losses on advances in the FHLBank System's over 90-year operational history.

- **Cooperatively Organized**: No public equity - FHLBank customers are also the owners, which fosters conservative management and a long-term view of financial performance.

- **Joint & Several Support**: The FHLBanks share joint & several liability to repay all Consolidated Obligations.
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