This presentation does not constitute an offer to sell or the solicitation of an offer to buy securities of the FHLBanks; nor shall there be any sale of these securities in any jurisdiction in which such an offer, solicitation or sale would be unlawful. No recommendation is made concerning the securities described in this presentation, and any investment decision as to any purchase of these securities must be made solely on the basis of information contained in the FHLBanks’ Information Memorandum, as amended or supplemented (including the information incorporated by reference therein), and no reliance may be placed on the completeness or accuracy of the information contained in this presentation. The FHLBanks’ securities are not obligations of the United States and are not guaranteed by the United States.

FORWARD-LOOKING STATEMENTS

Statements contained in this presentation, including statements describing the objectives, projections, estimates, or future predictions 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," "may," "should," "will," "would," 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; changes to, and replacement of, the London Interbank Offered Rate benchmark interest rate, and the use and acceptance of the Secured Overnight Financing Rate; 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 that could affect the value of investments or collateral held by the FHLBanks as security; 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; 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 changes in credit ratings and/or the terms of derivative transactions; the ability to introduce new FHLBank products and services and successfully manage the risks associated with those products and services; 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; the effect of new accounting guidance; and natural disasters, pandemics or other widespread health emergencies, terrorist attacks, or other unanticipated or catastrophic events, including the economic and financial disruptions and uncertainties and significant operational challenges created by the COVID-19 pandemic and related developments.

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 maintain issuance programs designed to meet changing investor needs, and continue to obtain a majority of funding via reverse inquiry.

The FHLBanks are reliable liquidity providers through a fully-collateralized lending model that has shielded the FHLBanks from sustaining any credit losses on advances for over 85 years.

Cooperative member-provided capital base is designed to expand and contract in response to member borrowing 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 6,700 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

**Members**
- Mortgage Lending & Community Investment

**Secured Loans (Advances)**
- Capital & Collateral

**FHLBanks**
- Issuance Proceeds

**Investors**
- Debt Securities
- Investment Capital

**Office of Finance**
- Debt Securities
- Issuance Proceeds

**Dealers**
- Issuance Proceeds

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 the entire FHLBank System.

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

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Advances (Secured Loans)</td>
<td>634</td>
<td>705</td>
<td>732</td>
<td>729</td>
<td>642</td>
<td>558</td>
</tr>
<tr>
<td>Cash &amp; Liquidity</td>
<td>107</td>
<td>115</td>
<td>133</td>
<td>120</td>
<td>207</td>
<td>188</td>
</tr>
<tr>
<td>Term Investments</td>
<td>181</td>
<td>185</td>
<td>184</td>
<td>187</td>
<td>173</td>
<td>169</td>
</tr>
<tr>
<td>Mortgage Loans Held for Portfolio(^{(1)})</td>
<td>44</td>
<td>48</td>
<td>54</td>
<td>63</td>
<td>72</td>
<td>73</td>
</tr>
<tr>
<td><strong>Total Assets</strong></td>
<td>969</td>
<td>1,056</td>
<td>1,103</td>
<td>1,103</td>
<td>1,099</td>
<td>992</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Retained Earnings</td>
<td>14.3</td>
<td>16.3</td>
<td>18.1</td>
<td>19.5</td>
<td>20.6</td>
<td>21.2</td>
</tr>
<tr>
<td>Total Capital (GAAP)</td>
<td>48</td>
<td>53</td>
<td>56</td>
<td>58</td>
<td>55</td>
<td>53</td>
</tr>
<tr>
<td>Regulatory Capital(^{(2)})</td>
<td>49</td>
<td>54</td>
<td>57</td>
<td>59</td>
<td>56</td>
<td>54</td>
</tr>
<tr>
<td>Regulatory Capital Ratio(^{(3)})</td>
<td>5.10%</td>
<td>5.14%</td>
<td>5.17%</td>
<td>5.36%</td>
<td>5.14%</td>
<td>5.48%</td>
</tr>
<tr>
<td><strong>Net Income</strong></td>
<td>2.9</td>
<td>3.4</td>
<td>3.4</td>
<td>3.5</td>
<td>3.2</td>
<td>1.3</td>
</tr>
</tbody>
</table>

\(^{(1)}\) MPF®/MPP  
\(^{(2)}\) 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.  
\(^{(3)}\) Each FHLBank maintains a minimum 4% regulatory capital-to-asset ratio  

Source: Combined Financial Reports – subject to rounding
A Self-Capitalizing Model

Capital Generally Tracks Advances

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

Controlled Scalability: FHLBanks Have 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

Retained Earnings have grown over 600% since 2008 as the FHLBanks strengthened this component of capital as a risk mitigant for both investors and members

FHFA regulation prohibits member stock redemption if it could result in FHLBank undercapitalization
### Regulatory Capital Requirements

#### Total Capital Ratio

<table>
<thead>
<tr>
<th>(4% minimum requirement)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sum of permanent capital (5-year Class B stock plus retained earnings) and amounts paid for Class A stock (6-month redeemable), plus any general loss allowance and other sources approved by the regulator</td>
</tr>
</tbody>
</table>

#### Leverage Capital Ratio

<table>
<thead>
<tr>
<th>(5% minimum requirement)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sum of permanent capital weighted by a 1.5 multiplier, plus all other capital</td>
</tr>
</tbody>
</table>

#### Risk-Based Capital

<table>
<thead>
<tr>
<th>(minimum requirement varies)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Credit Risk</strong></td>
</tr>
<tr>
<td>Determined by adding together the credit risk capital charges computed for assets, off-balance sheet items, and derivatives based on percentages assigned by the regulator</td>
</tr>
<tr>
<td><strong>Market Risk</strong></td>
</tr>
<tr>
<td>Sum of the market value of portfolio risk from movements in interest rates that could occur during times of market stress plus any amount by which the current market value of total capital falls short of 85% of book value</td>
</tr>
<tr>
<td><strong>Operations Risk</strong></td>
</tr>
<tr>
<td>Equal to 30% of the sum of the credit and market risk components</td>
</tr>
</tbody>
</table>

Source: Historical Combined Financial Report
FHLBanks may voluntarily suspend or eliminate dividends and/or early excess stock repurchases, and may increase the membership and/or activity-based stock requirements to preserve or create additional capital.

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
- Increasing capital requirements or temporary surcharges in excess of statutory or regulatory minimums
- FHFA retains the ultimate authority to place any FHLBank into conservatorship, or merge FHLBanks

FHLBanks’ Joint Capital Enhancement Agreement strengthens the retained earnings capital base

Source: Historical Combined Financial Reports and subject to rounding
Regulatory Capital Composition

Permanent Capital

Class B Stock (5yr stock)  Retained Earnings

Other Capital Sources

Class A Stock (6mo stock)  Other Regulator Approved Sources*  GAAP General Loss Allowances

*Any other amount from sources available to absorb losses that the FHFA has determined to be appropriate in determining total capital
Members Have Recently Exhibited a Preference for Fixed Rate Advances

Advances represent approximately 56% of total assets at 2Q20

Source: Combined Financial Reports – based on par value, excludes accounting adjustments
Credit Risk Management

FHLBanks Manage Credit Risk by Fully Collateralizing all Advances

- Credit limits are established for each member and borrowing capacity is subject to ongoing review of their overall creditworthiness and collateral management practices
- Advances are secured by either a blanket lien, listing (specific pledge), or physical delivery of collateral
- UCC financing statements filed on all entities pledging assets
- Lending capacity regularly adjusted based on applicable haircuts on eligible collateral
- Whole loan mortgage collateral must be performing (no greater than 90 days delinquent) - most FHLBank policies are more restrictive and use a 30-60 day cutoff
- Securities collateral generally requires all securities to be rated single-A or higher and most must be delivered to the FHLBank or a securities custodian

No Credit Losses on Advances in System History ★

The “Super Lien” provides additional statutory support to the priority status of FHLBank security interests in member assets

FHLBanks perfect their secured interests in member assets and receive lien priority over other creditors, including any receiver, conservator, trustee, or similar lien creditor (Competitive Equality Banking Act of 1987)
Collateral Securing Advances

At 2Q20, 98 Borrowers had Advances Outstanding of at Least $1 Billion, Representing $359 Billion, or 64% of Total Advances.

**Type of Collateral Securing Advances and Other Credit Products Outstanding**

- Single-family mortgage loans: 47%
- Commercial real estate loans: 21%
- Multifamily mortgage loans: 10%
- HEL/HELOC: 6%
- Agency MBS/CMO: 5%
- CMBS: 1%
- Other: 9%
- Agency debt: <1%

**Total Credit Exposure vs. Collateral Outstanding ($ in billions)**

- 3.2 Collateralization Ratio
- 3.9 Collateralization Ratio

- 2Q20, 98 Borrowers had Advances Outstanding of at Least $1 Billion, Representing $359 Billion, or 64% of Total Advances.

**Source:** 2Q 2020 Combined Financial Report
Collateral Lending Values

<table>
<thead>
<tr>
<th>Collateral Type</th>
<th>Blanket Lien</th>
<th>Listing</th>
<th>Delivery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash, U.S. government, &amp; U.S. Treasury securities</td>
<td>N/A</td>
<td>N/A</td>
<td>91%</td>
</tr>
<tr>
<td>State &amp; local government securities</td>
<td>N/A</td>
<td>N/A</td>
<td>78%</td>
</tr>
<tr>
<td>U.S. agency securities</td>
<td>N/A</td>
<td>N/A</td>
<td>95%</td>
</tr>
<tr>
<td>U.S. agency MBS/CMO</td>
<td>N/A</td>
<td>N/A</td>
<td>95%</td>
</tr>
<tr>
<td>Private-label MBS/CMO</td>
<td>N/A</td>
<td>N/A</td>
<td>70%</td>
</tr>
<tr>
<td>CMBS</td>
<td>N/A</td>
<td>N/A</td>
<td>85%</td>
</tr>
<tr>
<td>Single-family mortgage loans</td>
<td>78%</td>
<td>85%</td>
<td>80%</td>
</tr>
<tr>
<td>Multifamily mortgage loans</td>
<td>71%</td>
<td>79%</td>
<td>73%</td>
</tr>
<tr>
<td>Other US government-guaranteed mortgage loans</td>
<td>83%</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Home equity loans &amp; LOCs</td>
<td>58%</td>
<td>68%</td>
<td>57%</td>
</tr>
<tr>
<td>CFI (2) loans</td>
<td>55%</td>
<td>69%</td>
<td>28%</td>
</tr>
<tr>
<td>Commercial real estate loans</td>
<td>69%</td>
<td>74%</td>
<td>71%</td>
</tr>
<tr>
<td>Other real estate loans</td>
<td>48%</td>
<td>80%</td>
<td>77%</td>
</tr>
</tbody>
</table>

(1) Please see pg 92 of the 2019 Combined Financial Report for the range of effective lending values applied to collateral
(2) Community Financial Institution – Total assets capped at $1.224 billion for 2020 by FHFA and adjusted annually for inflation

FHLBanks routinely use the following derivatives and embedded options to reduce identified risks inherent in normal lending, investing, and funding activities:

- Interest-rate swaps and swaptions
- Cap and floor agreements
- Advances
  - Derivatives may be used to adjust repricing and/or options characteristics in order to more closely match the characteristics of the FHLBanks’ funding liabilities
  - In general, fixed-rate or option-embedded advances are executed simultaneously with an interest rate swap containing offsetting terms
- Calls and puts
- Futures and forward contracts
- Mortgage Loans & Investments
  - Interest rate risk is managed through a combination of callable and non-callable debt issuance and derivatives to achieve cash flow patterns and liability durations similar to the mortgages
  - A combination of swaps and options, including futures, may be used as a portfolio of derivatives linked to a portfolio of mortgage loans
The FHLBanks manage counterparty credit risk through credit analysis, collateral requirements, and adherence to policies and regulations.

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.

Source: 2Q 2020 Combined Financial Report
Liquidity Portfolio

FHLBanks Maintain Contingent Liquidity

- FHFA requires FHLBanks to hold positive cash flow, including 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 portfolio represents 19% of total assets at 2Q20

Liquidity Portfolio
$188 billion

- US Treasuries 39%
- Fed Funds Sold 29%
- Reverse Repo 22%
- Interest Bearing Deposits (2) 7%
- Cash (1) 3%

(1) Includes collected cash balances with commercial banks in return for services, and pass-through reserves deposited with Federal Reserve Banks on behalf of members
(2) May include FHLBank Members

Source: 2Q 2020 Combined Financial Report - Based on carrying value and subject to rounding
# Investment Portfolio

**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.
- Approximately 98% of investment securities are rated double-A or higher.
- Regulation limits MBS investments to 300% of capital (1).
- FHLBank policies generally permit purchase of triple-A rated MBS only.
- Investment portfolio represents approximately 17% of total assets at 2Q20.

(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) Includes non-agency RMBS, home equity ABS, & MH loan ABS.

(3) Federal Family Education Loan Program.

(4) Includes state/local housing agency obligations & GNMA securities.

## MBS & Term Investment Portfolio

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agency RMBS/CMBS</td>
<td>76%</td>
</tr>
<tr>
<td>GSE/TVA Debt</td>
<td>11%</td>
</tr>
<tr>
<td>Private-Label MBS (2)</td>
<td>2%</td>
</tr>
<tr>
<td>FFELP ABS (3)</td>
<td>2%</td>
</tr>
<tr>
<td>Other (4)</td>
<td>9%</td>
</tr>
</tbody>
</table>

- **Total Portfolio Value:** $169 billion

**Source:** 2Q 2020 Combined Financial Report - Based on carrying value and subject to rounding.
Acquired Mortgage Assets

- MPF® (Mortgage Partnership Finance) and MPP (Mortgage Purchase Program) were created as alternatives to traditional GSE guarantee programs
  - 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

- Fund 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 to double-A equivalent

- 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 available for non-agency jumbo, agency conforming, and government guaranteed loans
  - Members are not required to provide credit enhancement and do not receive fees

**Mortgage Loans Held for Portfolio**

($ in billions)

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

FHLBanks Use Multiple Debt Programs and Issuance Methods

Discount Notes
- Window: Active window program with maturity and settlement flexibility
- Auction: Twice weekly offerings of 1-, 2-, 3-, and 6-month maturities

Medium-Term Notes (MTNs)
- Reverse Inquiry: Reverse inquiry method utilized for callables, bullets, floaters, and structured notes
- Auction: Auction method used to distribute bullet (TAP) and American option callable securities

Globals
- Syndication: Strategic calendar issuance of liquid “benchmark” size bullets
Debt Profile Reflects Member and Investor Demand

Total Debt Outstanding

<table>
<thead>
<tr>
<th>Year</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Debt Outstanding</td>
<td>847</td>
<td>905</td>
<td>989</td>
<td>1,034</td>
<td>1,031</td>
<td>877</td>
</tr>
</tbody>
</table>

*As of 6/30/20

Bond Issuance*

<table>
<thead>
<tr>
<th>Year</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross Issuance:</td>
<td>304</td>
<td>524</td>
<td>482</td>
<td>477</td>
<td>614</td>
<td>314</td>
</tr>
<tr>
<td>Callable/Structured</td>
<td>75</td>
<td>70</td>
<td>36</td>
<td>37</td>
<td>106</td>
<td>36</td>
</tr>
<tr>
<td>FRNs</td>
<td>123</td>
<td>332</td>
<td>393</td>
<td>387</td>
<td>396</td>
<td>227</td>
</tr>
<tr>
<td>Advances</td>
<td>89</td>
<td>41</td>
<td>16.5</td>
<td>9</td>
<td>46</td>
<td>5</td>
</tr>
</tbody>
</table>

*As of 6/30/20

*Coupon debt only – excludes discount notes

Source: FHLBanks Office of Finance – by settlement date – as of 07/31/20
Term Debt Refunding

Scheduled Bond Maturities

($ in billions)

Syndicated Globals  MTNs

Historical Bond Redemption Activity

($ in billions)

<table>
<thead>
<tr>
<th>Year</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maturities</td>
<td>$234</td>
<td>$281</td>
<td>$405</td>
<td>$514</td>
<td>$489</td>
<td>$314</td>
</tr>
<tr>
<td>Calls/Retirements</td>
<td>$144</td>
<td>$75</td>
<td>$14</td>
<td>$1.3</td>
<td>$108</td>
<td>$92</td>
</tr>
</tbody>
</table>

Source: FHLBanks Office of Finance and subject to rounding – as of 7/31/20
Discount Note Program

Discount Notes Outstanding

Discount Note Issuance

Gross DN Issuance:

<table>
<thead>
<tr>
<th>Year</th>
<th>Window</th>
<th>Auction</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>1,750</td>
<td>554</td>
</tr>
<tr>
<td>2016</td>
<td>1,858</td>
<td>793</td>
</tr>
<tr>
<td>2017</td>
<td>2,015</td>
<td>985</td>
</tr>
<tr>
<td>2018</td>
<td>2,379</td>
<td>1,336</td>
</tr>
<tr>
<td>2019</td>
<td>2,126</td>
<td>1,190</td>
</tr>
<tr>
<td>2020</td>
<td>967</td>
<td>648</td>
</tr>
</tbody>
</table>

Source: FHLBanks Office of Finance – by settlement date – as of 07/31/20 and subject to rounding
Short-Term Debt

FHLBank Debt has Consistently Met Investors’ Needs for Safety and Liquidity

2a-7 Eligible Coupon Debt Outstanding

<table>
<thead>
<tr>
<th>Year</th>
<th>Outst. Coupon Debt w/ Remaining Maturity ≤ 397 Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan-15</td>
<td>100</td>
</tr>
<tr>
<td>Jan-16</td>
<td>125</td>
</tr>
<tr>
<td>Jan-17</td>
<td>150</td>
</tr>
<tr>
<td>Jan-18</td>
<td>175</td>
</tr>
<tr>
<td>Jan-19</td>
<td>200</td>
</tr>
<tr>
<td>Jan-20</td>
<td>225</td>
</tr>
</tbody>
</table>

Short-term Coupon Debt Issuance

<table>
<thead>
<tr>
<th>Year</th>
<th>Floaters w/ Orig Mty ≤ 730 days</th>
<th>Callables/Structured w/ Orig Mty ≤ 397 days</th>
<th>Fixed w/ Orig Mty ≤ 397 days</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>86</td>
<td>79</td>
<td>12</td>
</tr>
<tr>
<td>2016</td>
<td>331</td>
<td>55</td>
<td>5</td>
</tr>
<tr>
<td>2017</td>
<td>392</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>2018</td>
<td>379</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>2019</td>
<td>393</td>
<td>45</td>
<td>77</td>
</tr>
<tr>
<td>2020</td>
<td>227</td>
<td>36</td>
<td>36</td>
</tr>
</tbody>
</table>

Source: FHLBanks Office of Finance – by settlement date – as of 7/31/20 and subject to rounding
FHLBank SOFR Debt Transition

The financial markets are in the early stages of a transition away from LIBOR, with the U.S. markets beginning to move towards the Secured Overnight Financing Rate (SOFR), the recommended alternative to U.S. dollar LIBOR

- The FHLBanks recognize our key role in supporting the continued development of a SOFR-linked debt market
- The FHLBanks expect to support our members’ LIBOR transition, including their need for SOFR-linked advances, which is expected to lead to our need to source SOFR-based funding

Beginning in November 2018, the FHLBanks’ SOFR issuance program is intended to:

- Support the continued development of SOFR-linked floating-rate note (FRN) market
- Encourage broad investor participation to promote market development and liquidity
- Standardize payment and reset features over time consistent with market participants’ expectations

The FHLBanks anticipate a multi-phased approach to developing our SOFR issuance platform

- Initial focus is on multi-dealer syndicated issues to foster transparency and liquidity
- Diverse investor participation, including money market funds, state & local governments, fund managers, insurance companies, pension funds and corporations

We will assess market developments, investor feedback, and FHLBank and member needs to adjust issuance methodology and SOFR-linked FRN terms and features as warranted
FHLBanks have issued $315.33 billion in SOFR FRNs

(As of July 31, 2020)

SOFR-Linked FRN Issuance by Structure

<table>
<thead>
<tr>
<th>Structure</th>
<th>3mo</th>
<th>5mo</th>
<th>7mNC6m</th>
<th>10mo</th>
<th>14mo</th>
<th>21mo</th>
<th>24mo</th>
<th>$ billions</th>
</tr>
</thead>
<tbody>
<tr>
<td>3mo</td>
<td>$19.48</td>
<td>$2.80</td>
<td>$4.34</td>
<td>$3.00</td>
<td>$.25</td>
<td>$3.75</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4mo</td>
<td>$17.30</td>
<td>$100.45</td>
<td>$2.40</td>
<td>$56.50</td>
<td>$15.12</td>
<td>$20.50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4mNC3m</td>
<td>$2.00</td>
<td>$7.05</td>
<td>$31.53</td>
<td>$1.00</td>
<td>$27.86</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Global Bond Program

- Maturity, size, and dealer syndicate announced exclusively on predetermined dates
- Issuance calendar 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 3-year maturities are a minimum of $2 billion for new issues and $250 million for re-openings
- 5-year and longer maturities are a minimum of $1 billion for new issues and $250 million for re-openings

Mandated Global Bullet Issuance

Historical Global Bullet Issuance
($ in billions – includes re-openings – 2011 to Present)

<table>
<thead>
<tr>
<th></th>
<th>2-Yr</th>
<th>3-Yr</th>
<th>5-Yr</th>
<th>7-Yr</th>
<th>10-Yr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Issuance</td>
<td>$94.5</td>
<td>$39.5</td>
<td>$15</td>
<td>0</td>
<td>$2.65</td>
</tr>
<tr>
<td># of New Issues</td>
<td>30</td>
<td>14</td>
<td>7</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: FHLBanks Office of Finance – as of 7/31/20
Global Bond Investor Distribution

Mandated Global Bullet Issues – August 2019 through July 2020

By Region

US 72%
Asia 12%
Europe 2%
Other 14%

By Investor Type

Fund Managers 46%
Central Banks 24%
State/Local 13%
Banks 8%
Insurance/Pension 2%
Other 7%

Source: FHLBanks Office of Finance – subject to rounding – “Other” may include investors not specified by underwriters
The TAP program is designed to coordinate and standardize the issuance of non-Global bullet 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 FHLB Globals and other agency benchmarks.

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

Source: FHLBanks Office of Finance – as of 7/31/20
Callable Bond Program

- Essential component of FHLBank funding, supporting both advances and investment portfolios
- Callables offer enhanced yield over comparable bullets 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:
- <3 Months: 33%
- 1 Year: 14%
- 3-6 Months: 45%
- 6-12 Months: 8%
- >1 Year: 33%

Callable Issuance by Option Type:
- Bermudan: 43%
- European: 21%
- American: 36%
- Canary: <1%
Conclusion

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

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

Fully-collateralized lending model combined with the “super lien” have shielded the FHLBanks from any credit losses on advances in the System’s 85 year operational history.

FHLBanks share joint & several liability to repay all senior debt obligations.
Investor Relations Contact Information

Kyle Lynch  
Global Investor Relations  
703-467-3642  
jlynch@fhlb-of.com

Denise de Bombelles  
Global Investor Relations  
703-467-3677  
debombelles@fhlb-of.com

FHLBanks - Office of Finance  
www.fhlb-of.com  
1818 Library Street  
Suite 420  
Reston, VA 20190  
(703) 467-3600