



# **Investor Presentation**

**February 2018**

This is not an offer to sell. FHLBank debt is not an obligation of or guaranteed by the United States and may not be offered or sold in any jurisdiction requiring its registration. No recommendation is made concerning the securities described. Please refer to the offering documents before purchasing these securities.

### **FORWARD-LOOKING STATEMENTS**

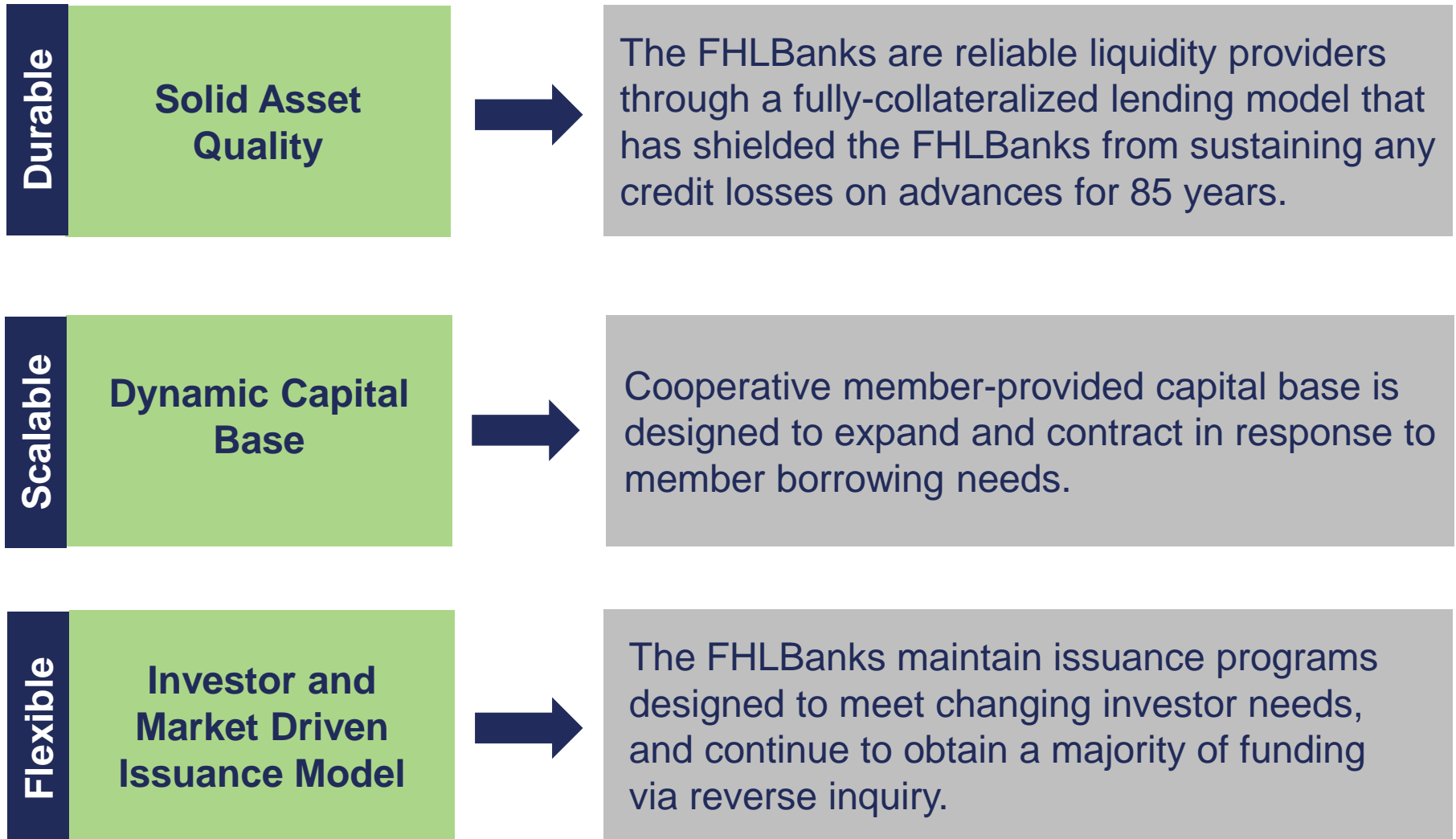
Statements contained in this presentation may be “forward-looking statements,” including statements describing the objectives, projections, estimates, or future predictions of the FHLBanks and Office of Finance. These statements may use forward-looking terminology, such as “anticipates,” “believes,” “could,” “estimates,” “may,” “should,” “will,” or their negatives or other variations on these terms. Investors should note that, by their nature, forward-looking statements 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, employment rates, housing market activity and housing prices, and the size and volatility of the residential mortgage market; volatility of market prices, interest rates, and indices or other factors that could affect the value of investments or collateral held by the FHLBanks resulting from the effects of, and changes in, various monetary or fiscal policies and regulations, including those determined by the Federal Reserve Board and the FDIC, or a decline in liquidity in the financial markets; political events, including legislative, regulatory, judicial, or other developments that affect the FHLBanks, their members, counterparties or investors in the consolidated obligations of the FHLBanks, including changes in the FHLBank Act, housing GSE reform, Finance Agency actions or regulations that affect FHLBank operations, and regulatory oversight; competitive forces, including other sources of funding available to FHLBank members, and other entities borrowing funds in the capital markets; demand for FHLBank advances resulting from changes in FHLBank members’ deposit flows and credit demands; loss of large members and repayment of advances made to those members due to institutional failures, mergers, consolidations, or withdrawals from membership; changes in domestic and foreign investor demand for consolidated obligations or the terms of interest-rate exchange agreements and similar agreements, including changes in the relative attractiveness of consolidated obligations as compared to other investment opportunities and changes resulting from any modification of credit ratings; the availability, from acceptable counterparties, of derivative financial instruments of the types and in the quantities needed for risk management purposes; the ability to introduce new products and services and successfully manage the risks associated with those products and services, including new types of collateral used to secure advances; and the effect of new accounting guidance, including the development of supporting systems and related internal controls.

Investors are encouraged to consider these and other risks and uncertainties that are discussed in periodic combined financial reports and in reports filed by each FHLBank with the Securities and Exchange Commission. None of the FHLBanks or the Office of Finance undertakes any obligation to publicly 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.

This data has not been audited and has been prepared for informational purposes only. While it is believed to be correct, accuracy cannot be guaranteed.

# FHLBanks are High-Quality, Low-Risk Housing GSEs

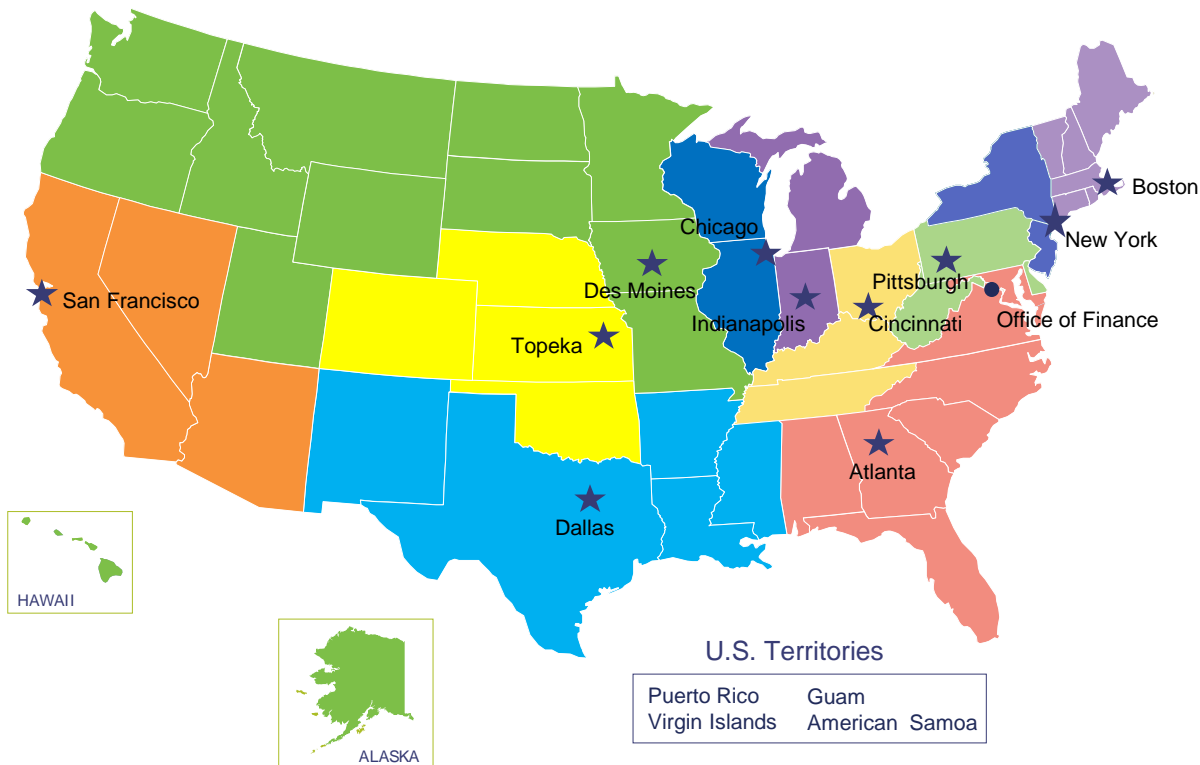


# FHLB System Overview

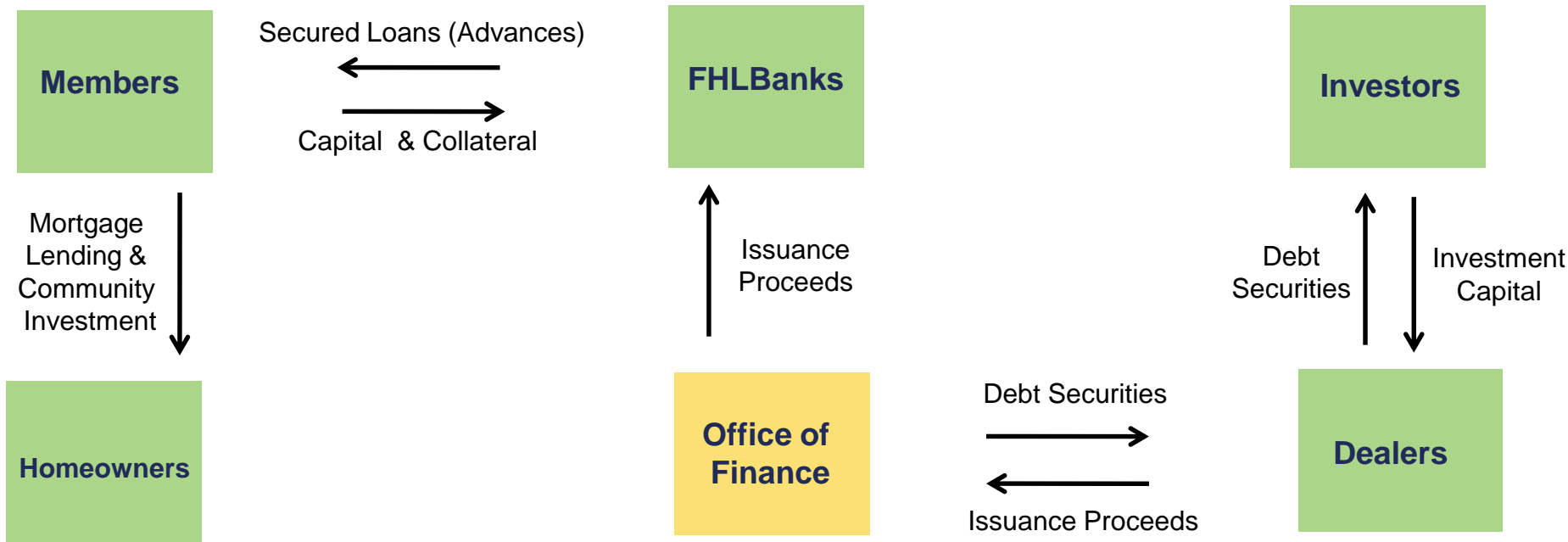
The 11 FHLBanks are government-sponsored enterprises (GSEs) organized as cooperatives under an act of Congress (Federal Home Loan Bank Act of 1932)

FHLBanks serve the general public by providing readily available, low-cost funding to approximately 7,000 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 the entire FHLBank System.

Current ratings:

- ❑ S&P: AA+ / A-1+ / stable outlook
- ❑ Moody’s: Aaa / P-1 / stable outlook

# Combined Financial Highlights

(\$ in billions)	2012	2013	2014	2015	2016	2017 <sup>(4)</sup>
Advances (Secured Loans)	426	499	571	634	705	719
Cash & Liquidity	103	101	108	107	115	141
Term Investments	182	188	188	181	185	182
Mortgage Loans Held for Portfolio <sup>(1)</sup>	50	45	44	44	48	52
<b>Total Assets</b>	<b>763</b>	<b>834</b>	<b>913</b>	<b>969</b>	<b>1,056</b>	<b>1,098</b>
Retained Earnings	10.5	12.2	13.2	14.3	16.3	17.7
Total Capital (GAAP)	43	45	47	48	53	55
Regulatory Capital <sup>(2)</sup>	51	51	50	49	54	56
Regulatory Capital Ratio <sup>(3)</sup>	6.69%	6.06%	5.43%	5.10%	5.14%	5.11%
<b>Net Income</b>	<b>2.6</b>	<b>2.5</b>	<b>2.3</b>	<b>2.9</b>	<b>3.4</b>	<b>2.5</b>

(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

(4) For the nine months ended 9/30/17



# A Self-Capitalizing Model

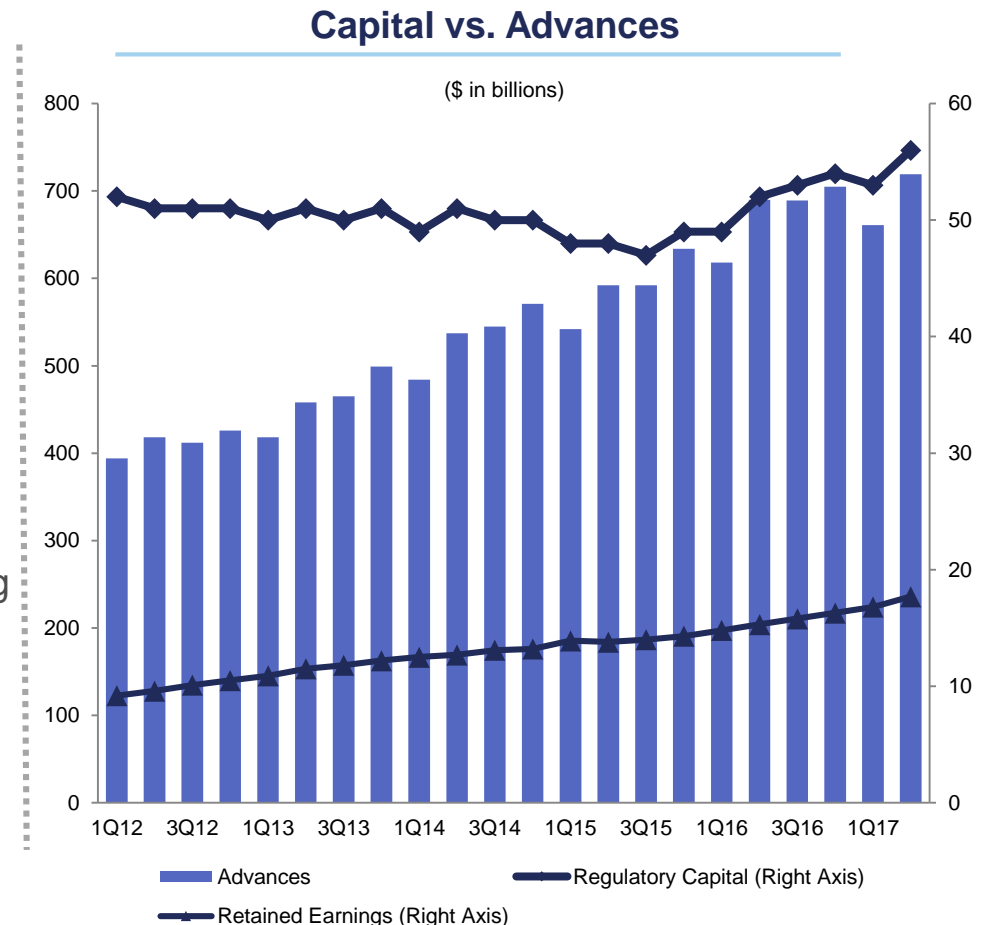
## Capital Generally Tracks Advances

- 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 500% since 2008 as the FHLBanks strengthened this component of capital as a risk mitigant for both investors and members

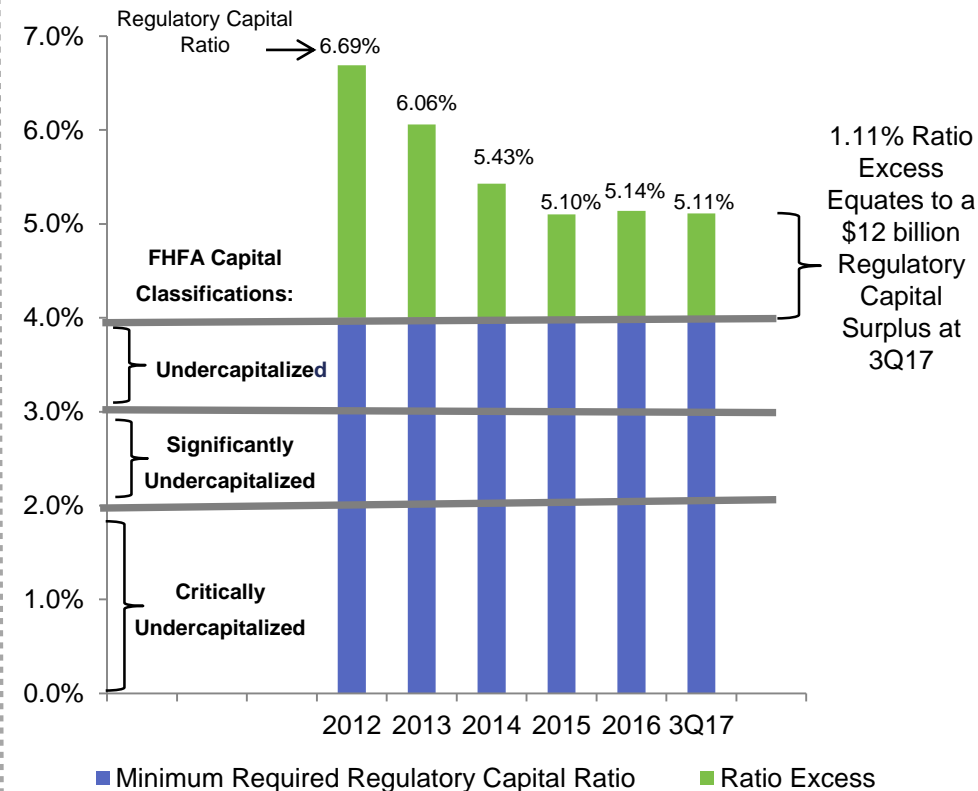


FHFA regulation prohibits member stock redemption if it could result in FHLBank undercapitalization

# Capital Preservation

- 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

## Regulatory Capital Ratio Reflects Successful Preservation Efforts



FHLBanks' Joint Capital Enhancement Agreement will build retained earnings capital base



# Regulatory Capital Requirements

## Total Capital Ratio (4% minimum requirement)

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

## Leverage Capital Ratio (5% minimum requirement)

Sum of permanent capital weighted by a 1.5 multiplier, plus all other capital

## Risk-Based Capital (minimum requirement varies)

### Credit Risk

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

### Market Risk

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

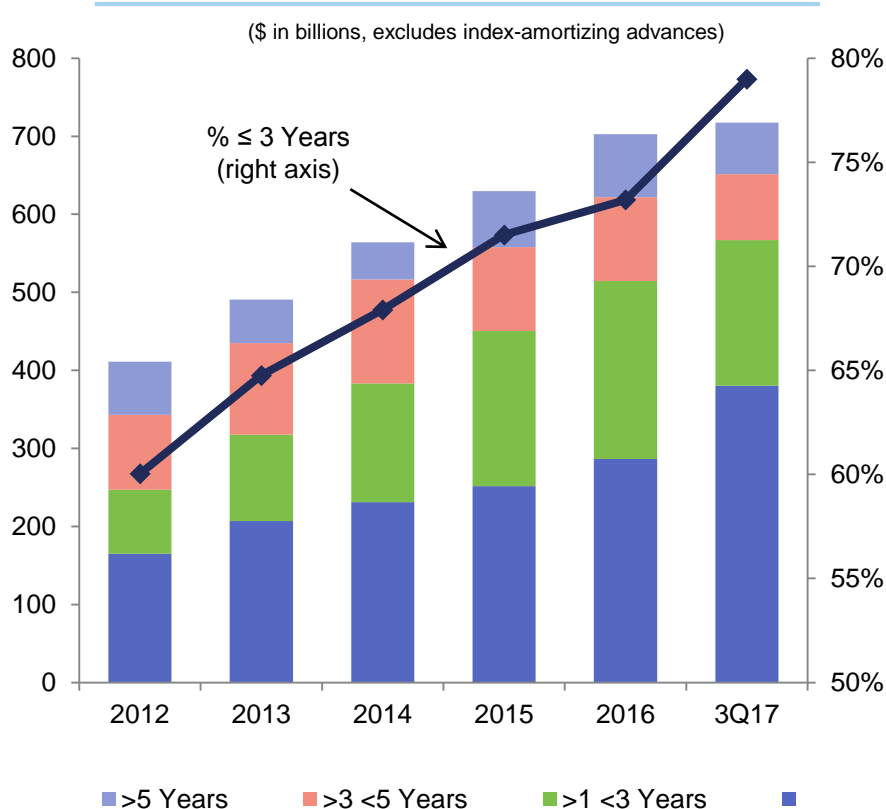
### Operations Risk

Equal to 30% of the sum of the credit and market risk components

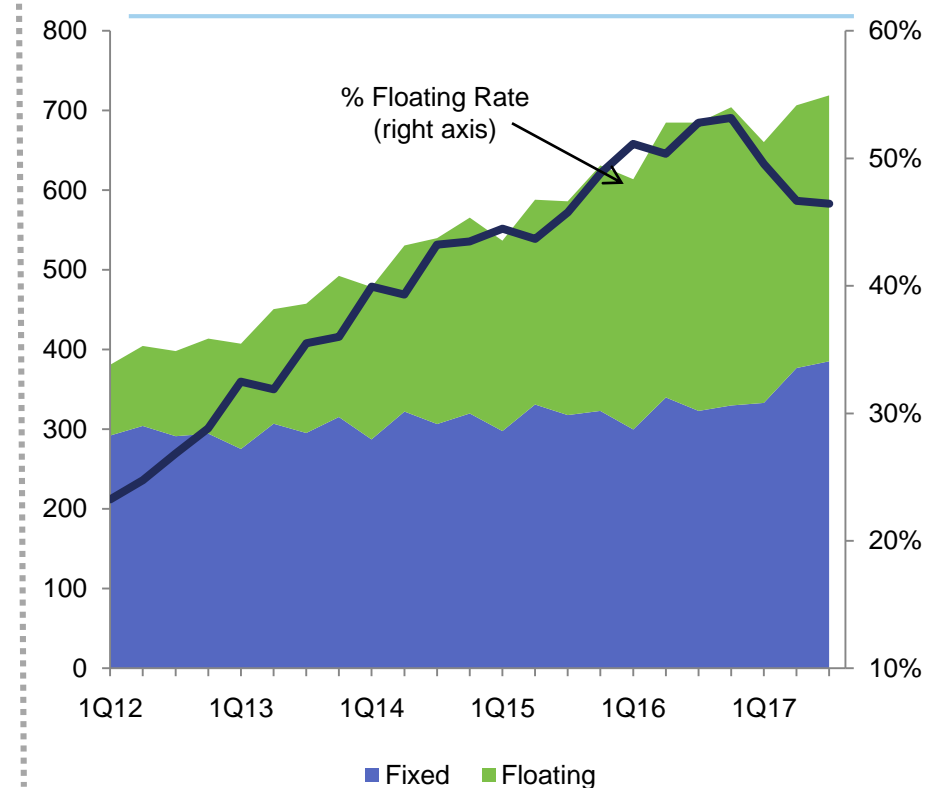
# Advances - Reliable Liquidity Source

Members Have Recently Exhibited a Preference for Fixed Rate Advances

### Advances by Maturity



### Advances by Structure



Advances represent approximately 65% of total assets at 3Q17

# 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

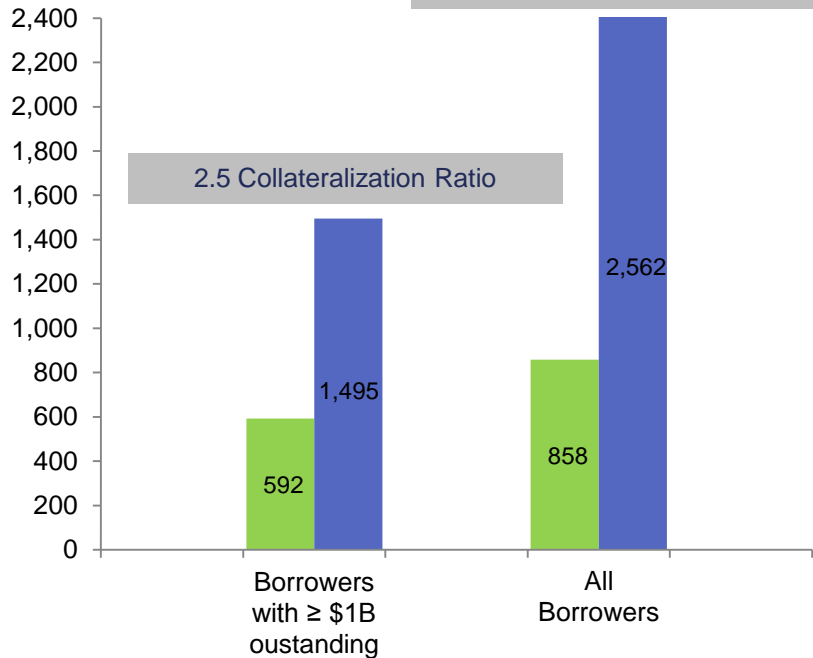
At 3Q17, 107 Borrowers had Advances Outstanding of at Least \$1 Billion, Representing \$513 Billion, or 71% of Total Advances

## Total Credit Exposure vs. Collateral Outstanding

(\$ in billions)

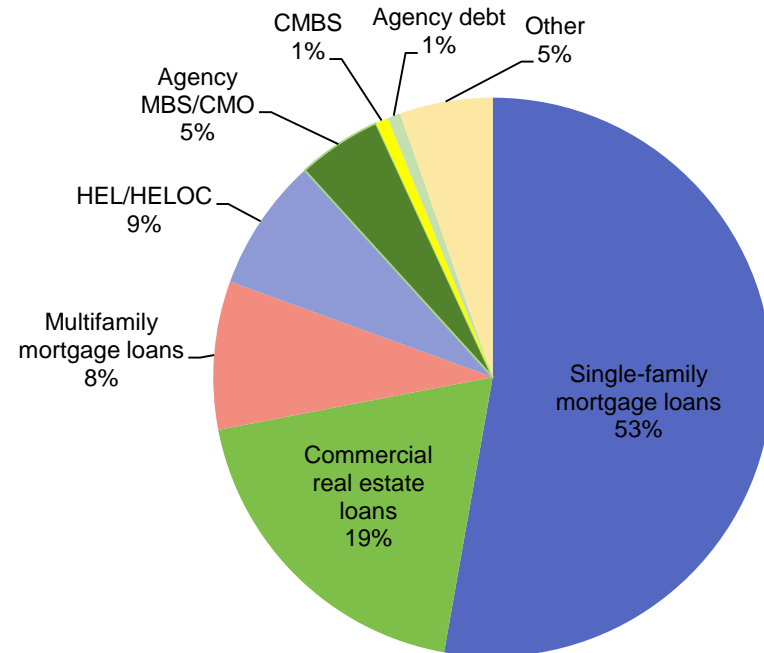
3.0 Collateralization Ratio

2.5 Collateralization Ratio



■ Advances & Other Credit Outstanding ■ Collateral Outstanding

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



# Collateral Lending Values

Collateral Type	Average Effective Lending Value <sup>(1)</sup>		
	Blanket Lien	Listing	Delivery
Cash, U.S. government, & U.S. Treasury securities	N/A	N/A	93%
State & local government securities	N/A	N/A	89%
U.S. agency securities	N/A	N/A	95%
U.S. agency MBS/CMO	N/A	N/A	95%
Private-label MBS/CMO	N/A	N/A	83%
CMBS	N/A	N/A	84%
Single-family mortgage loans	80%	86%	78%
Multifamily mortgage loans	74%	82%	75%
Other US government-guaranteed mortgage loans	84%	91%	N/A
Home equity loans & LOCs	64%	65%	63%
CFI <sup>(2)</sup> collateral	55%	68%	57%
Commercial real estate loans	68%	73%	71%
Other loan collateral	49%	79%	72%

(1) Please see the pg 82 of the 2016 Combined Financial Report for the range of effective lending values applied to collateral

(2) Community Financial Institution – Total assets capped at \$1.148 billion for 2017 by FHFA and adjusted annually for inflation

# Interest Rate Risk Management

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

Calls and puts

Cap and floor agreements

Futures and forward contracts

## 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

## Mortgage Loans & Investments

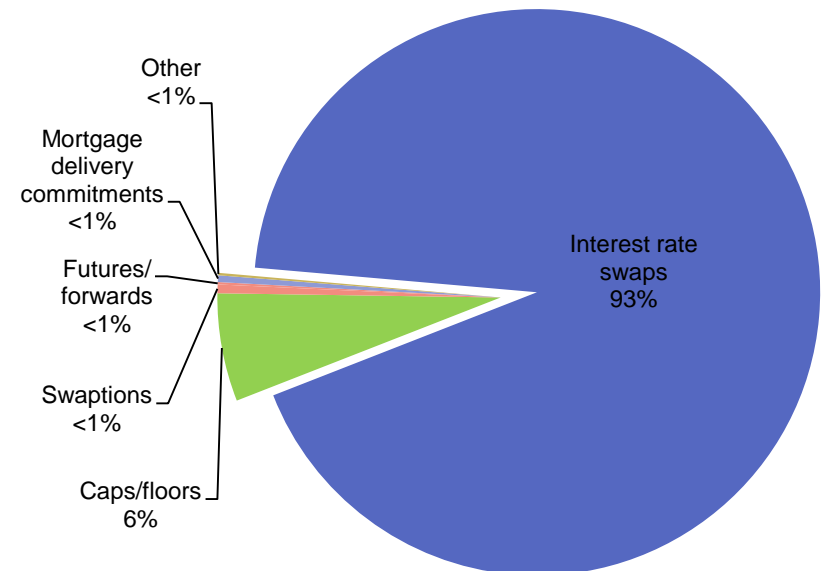
- Interest rate risk is managed through a combination of callable and non-callable debt issuance and derivatives to achieve cash flow patterns and liability durations similar to the mortgages
- A combination of swaps and options, including futures, may be used as a portfolio of derivatives linked to a portfolio of mortgage loans

# Derivatives

**\$1.8 Billion Net Credit Exposure to Counterparties  
on \$401 Billion Derivative Notional at 3Q17**

- 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

**Derivative Notional Outstanding by Instrument Type**



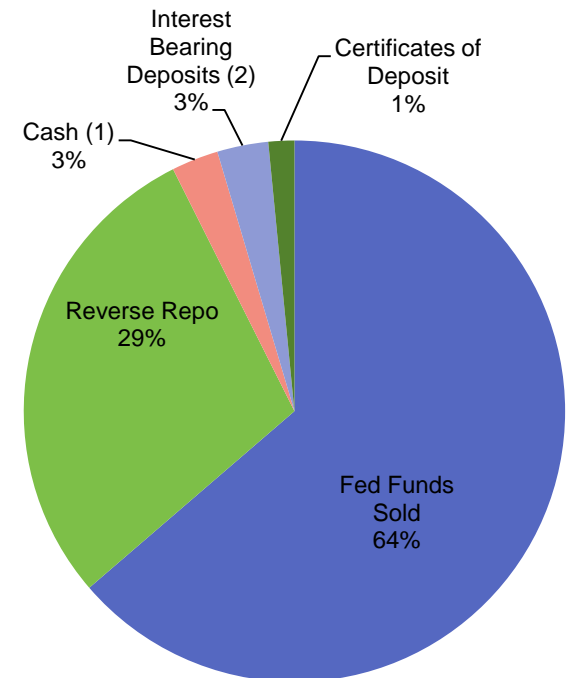
# Liquidity Portfolio

## FHLBanks Maintain Contingent Liquidity

- FHFA requires FHLBanks to maintain sufficient liquidity, through short-term investments, under two scenarios:
  - Inability to access debt markets for 5 days and all advances are renewed except those for very large, highly rated members
  - Inability to access debt markets for 15 days and no advances are renewed
- 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 13% of total assets at 3Q17

### Liquidity Portfolio

\$141 billion



(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



# Investment Portfolio

## FHLBanks Invest Primarily In High-Rated Securities

- ❑ FHLBanks maintain long-term investment portfolios to enhance interest income, cover operating expenses and bolster capacity to meet affordable housing commitments
- ❑ Approximately 94% of investment securities are rated double-A or higher
- ❑ Regulation limits MBS investments to 300% of capital <sup>(1)</sup>
- ❑ FHLBank policies generally permit purchase of triple-A rated MBS only
- ❑ Investment portfolio represents approximately 17% of total assets at 3Q17

(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

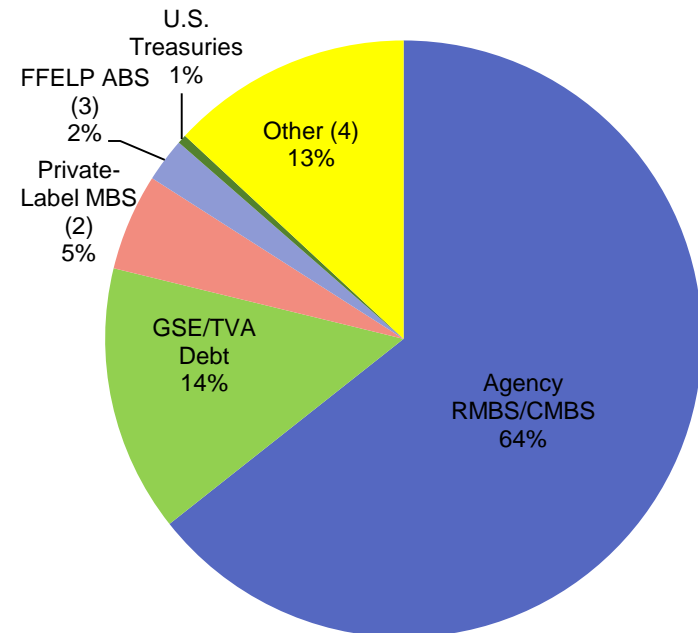
(2) Includes non-agency RMBS, home equity ABS, & MH loan ABS

(3) Federal Family Education Loan Program

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

### MBS & Term Investment Portfolio

\$182 billion

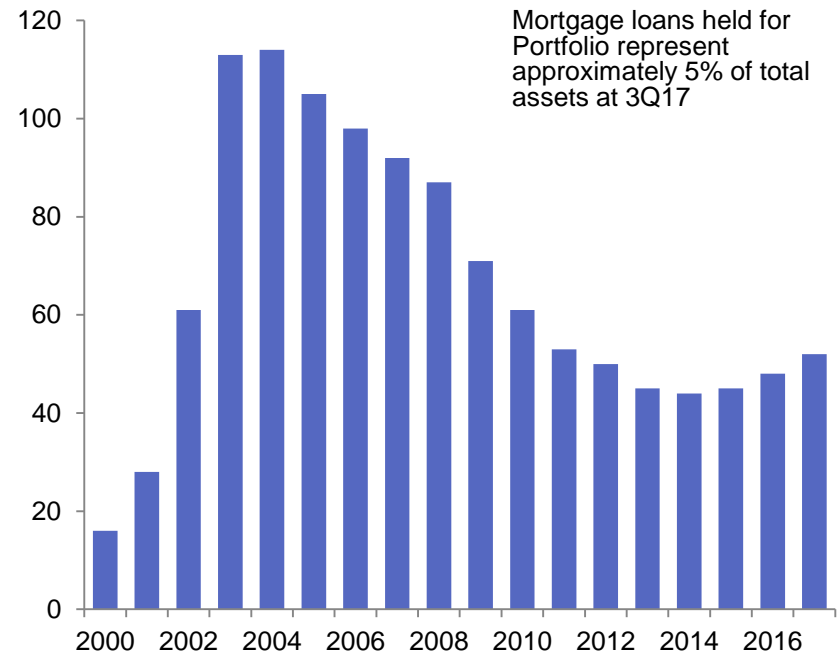


# Mortgage Purchase Programs

- 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

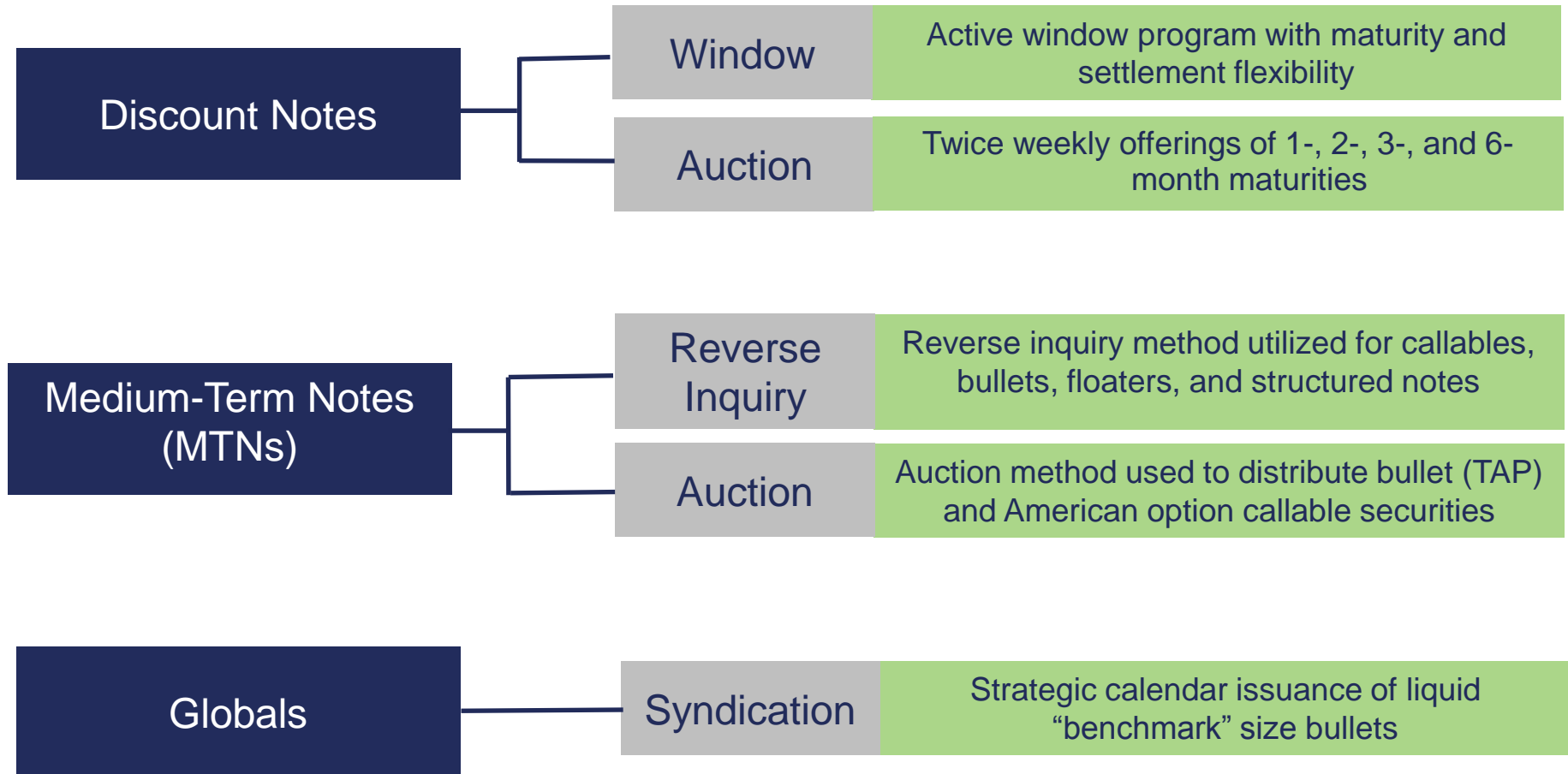
## Mortgage Loans Held for Portfolio

(\$ in billions)



# Debt Issuance Programs

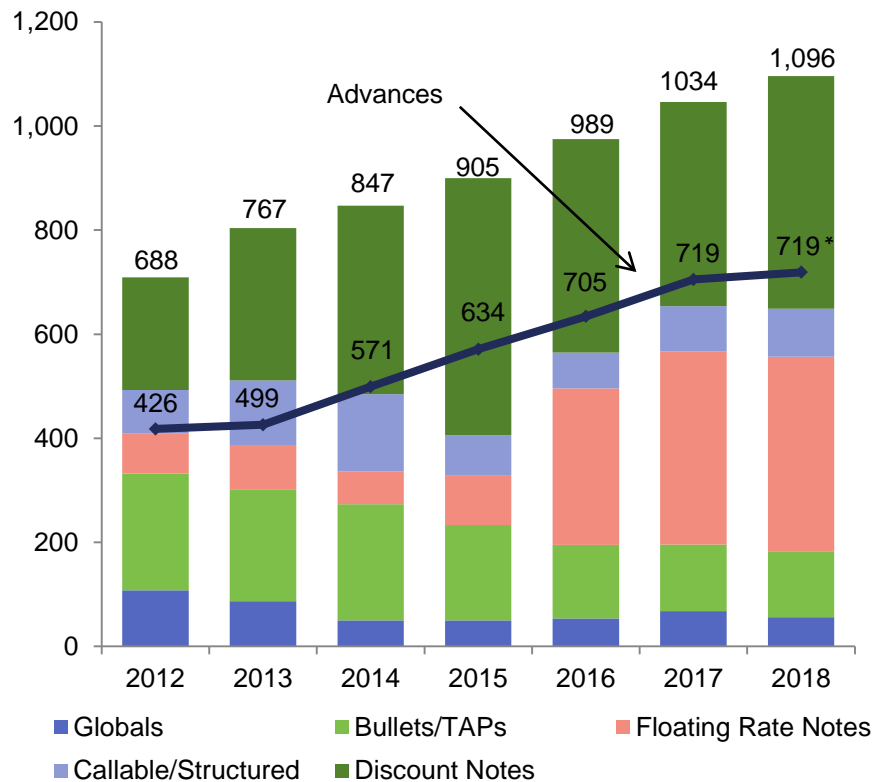
## FHLBanks Use Multiple Debt Programs and Issuance Methods



# Debt Profile Reflects Member and Investor Demand

## Total Debt Outstanding

(\$ in billions)

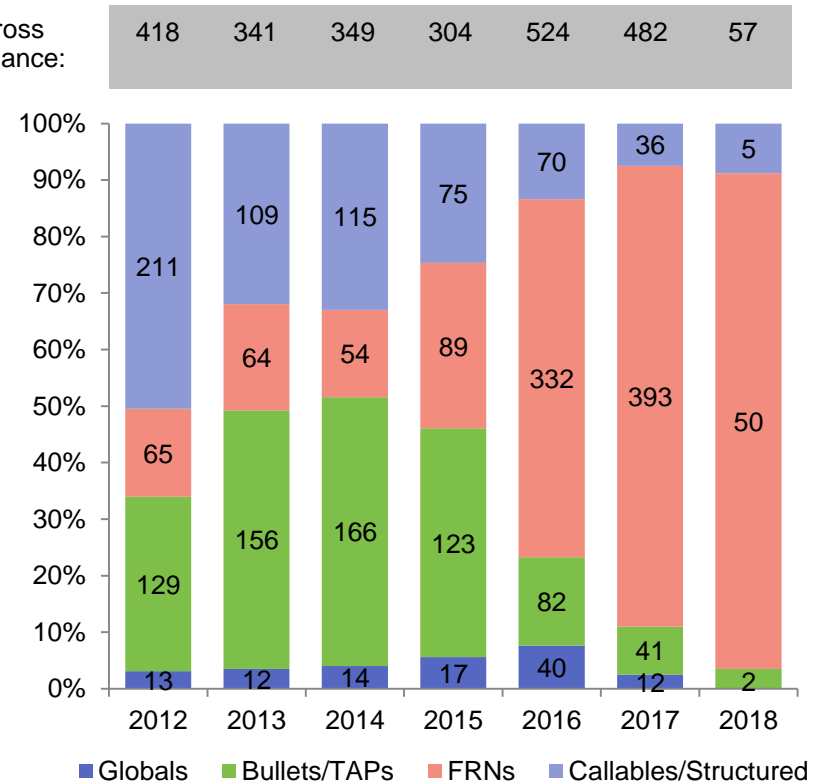


\*As of 9/30/17

## Bond Issuance\*

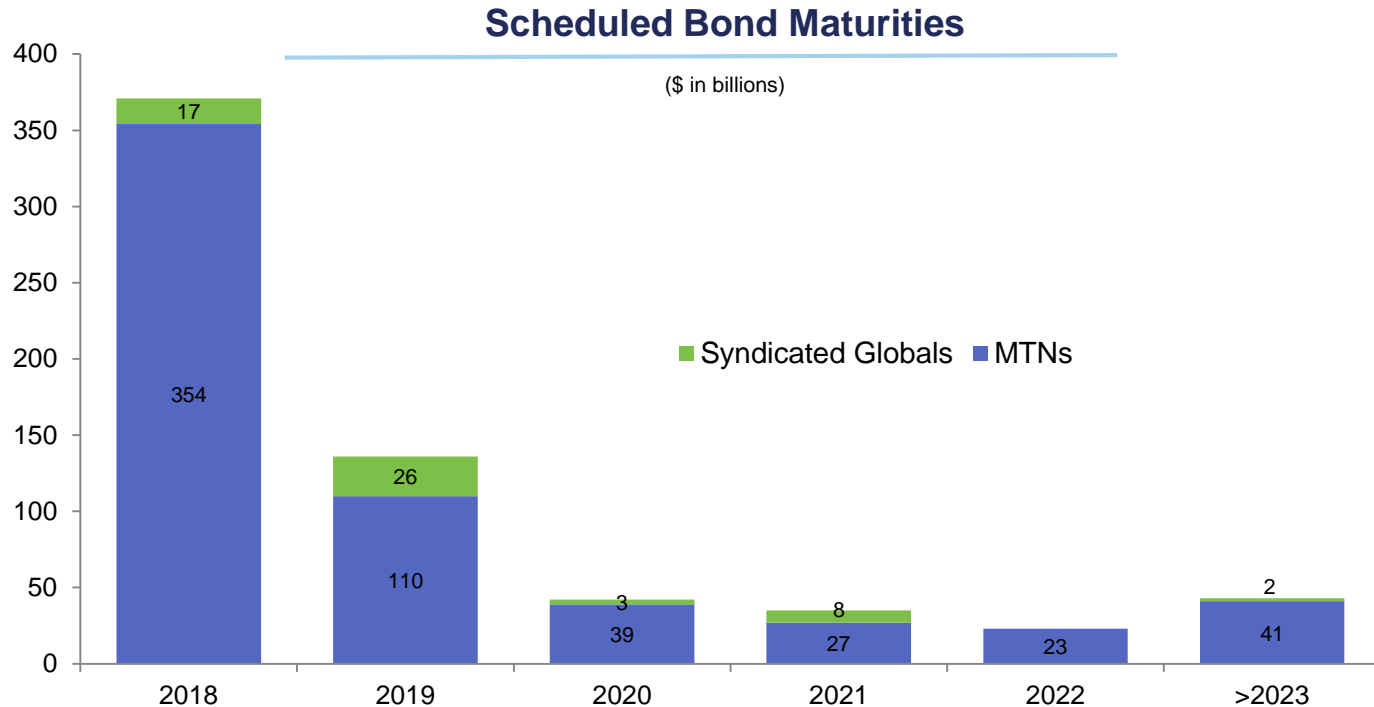
(\$ in billions)

Gross Issuance:



\*Coupon debt only – excludes discount notes

# Term Debt Refunding



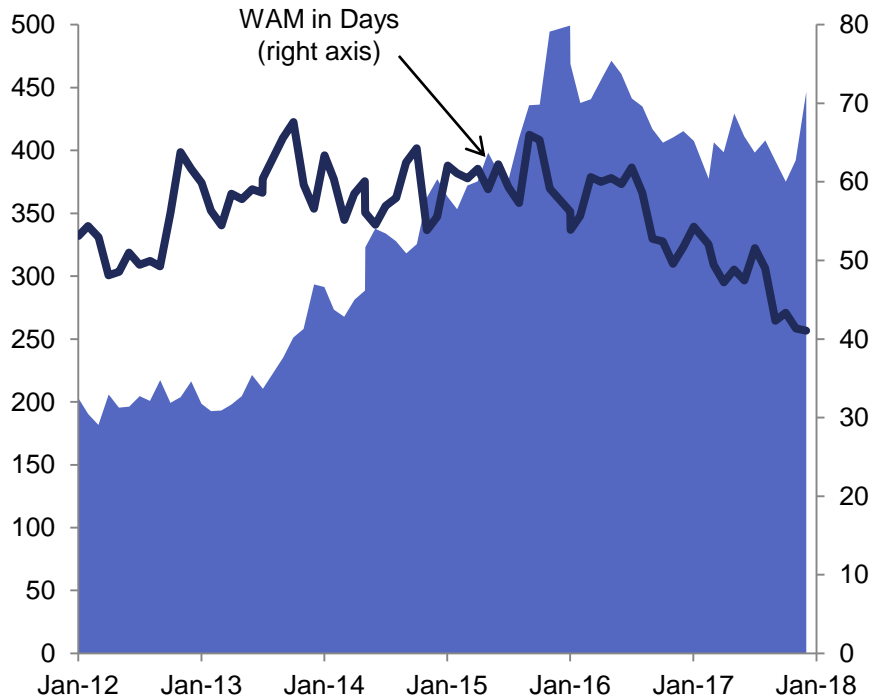
**Historical Bond Redemption Activity**  
(\$ in billions)

	2012	2013	2014	2015	2016	2017	2018
<b>Maturities</b>	\$198	\$272	\$247	\$234	\$281	\$405	\$50
<b>-----</b>	-----	-----	-----	-----	-----	-----	-----
<b>Calls/Retirements</b>	\$250	\$67	\$90	\$144	\$75	\$14	\$.13

# Discount Note Program

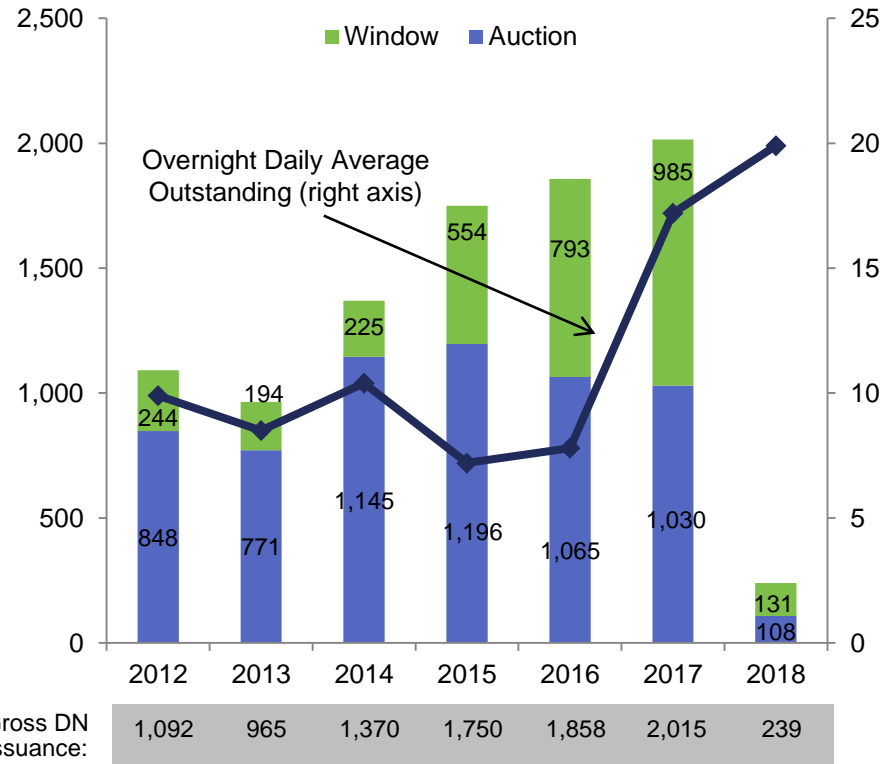
## Discount Notes Outstanding

(\$ in billions)



## Discount Note Issuance

(\$ in billions)



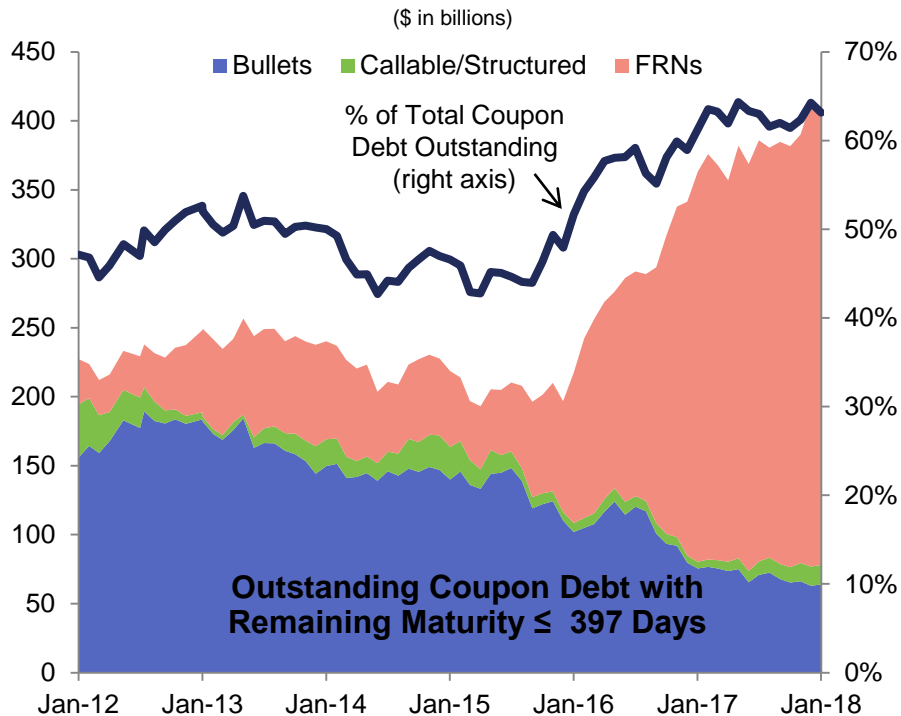
Gross DN Issuance:

2012	2013	2014	2015	2016	2017	2018
1,092	965	1,370	1,750	1,858	2,015	239

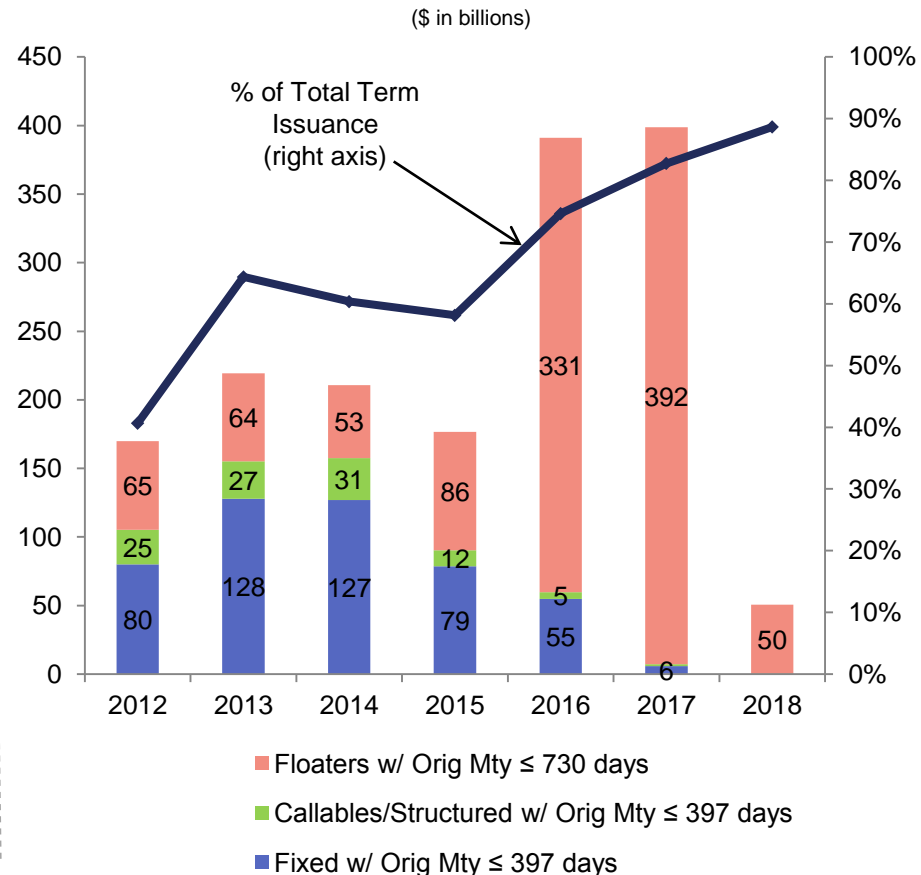
# Short-Term Debt

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

## 2a-7 Eligible Coupon Debt Outstanding



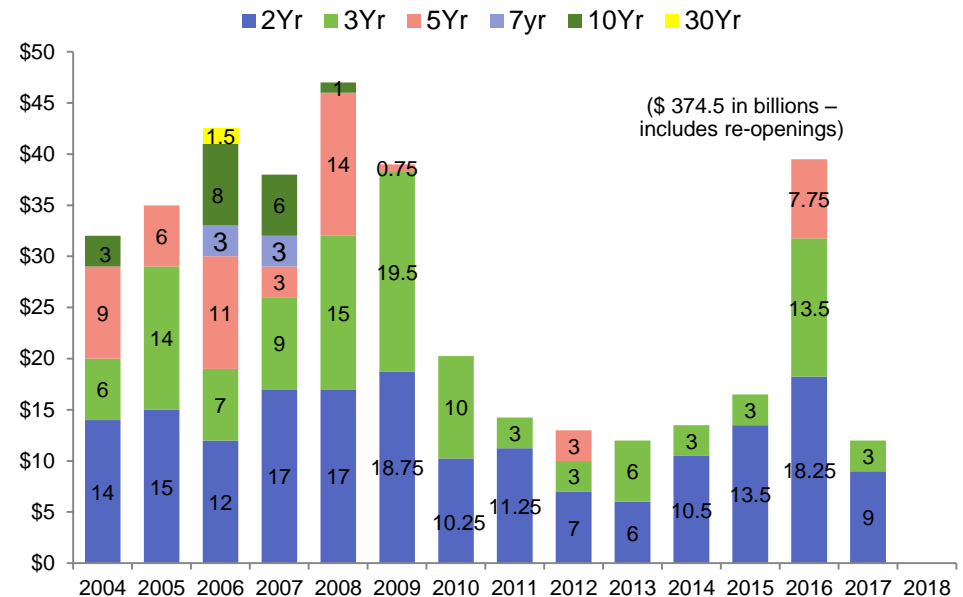
## Short-term Coupon Debt Issuance



# Global Bond Program

- Maturity, size, and dealer syndicate announced exclusively on predetermined dates
- Issuance calendar available at [www.fhlb-of.com](http://www.fhlb-of.com)
- FHLBanks may issue one or more new Globals and/or one or more re-openings on announcement dates, or may forego issuance
- 2- through 3-year maturities are a minimum of \$3 billion for new issues and \$500 million for re-openings
- 5- through 7-year maturities are a minimum of \$2 billion for new issues and \$500 million for re-openings
- 10- through 30-year maturities are a minimum of \$1 billion for new issues and \$500 million for re-openings

## Mandated Global Bullet Issuance



## Historical Global Bullet Issuance

(\$ in billions – includes re-openings – 2004 to present)

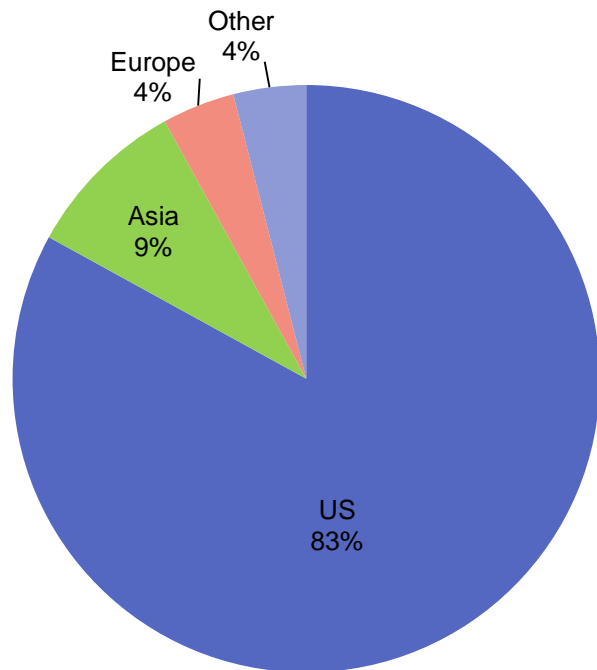
	2-Yr	3-Yr	5-Yr	7-Yr	10-Yr
<b>Total Issuance</b>	\$179.5	\$115	\$54.5	\$6	\$18
<b># of New Issues</b>	50	35	17	2	5



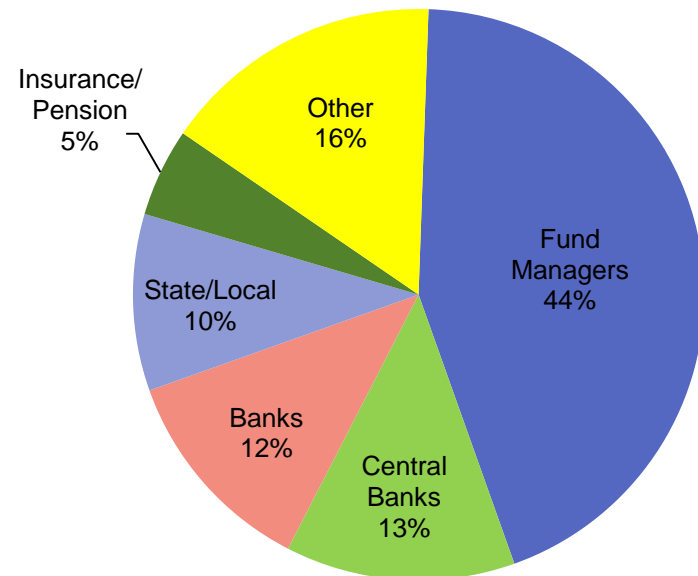
# Global Bond Investor Distribution

Mandated Global Bullet Issues – February 2017 through January 2018

### By Region



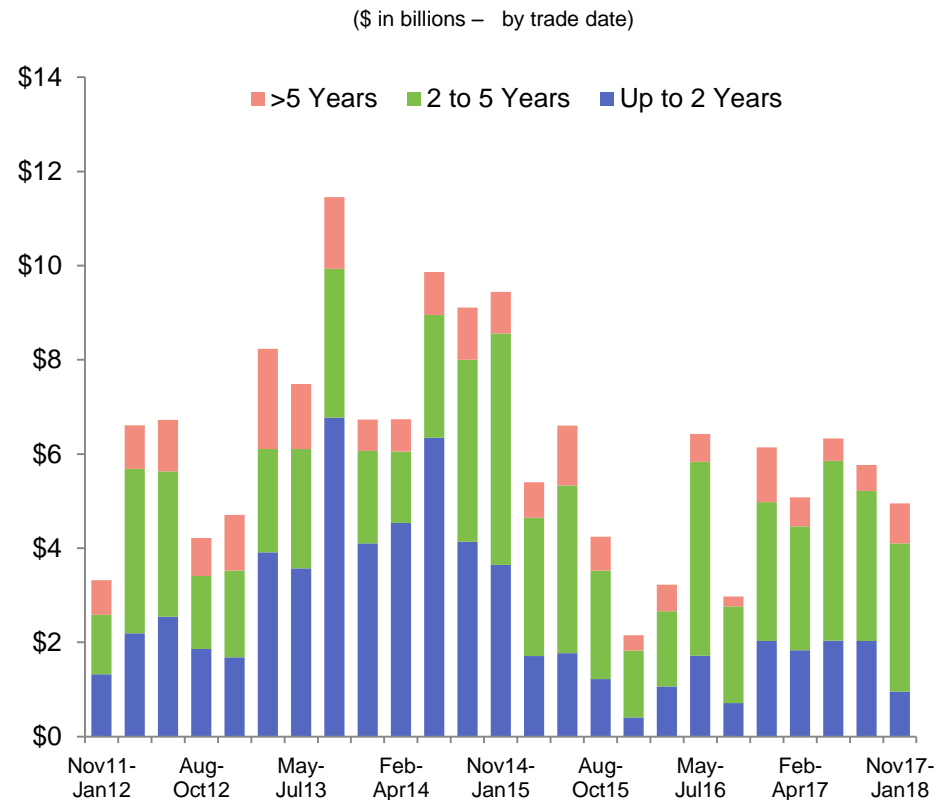
### By Investor Type



# TAP Program

- 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 21 member dealer bidding group

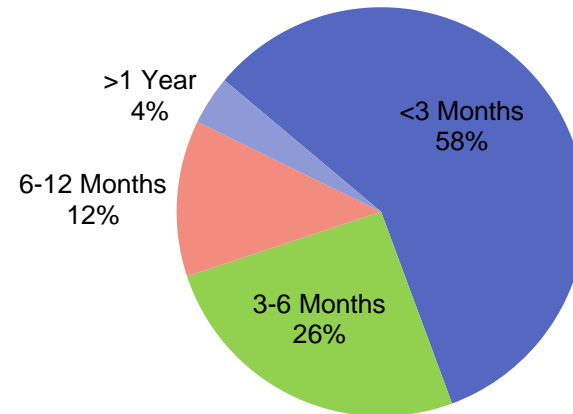
## Recent TAP Issuance Cycles



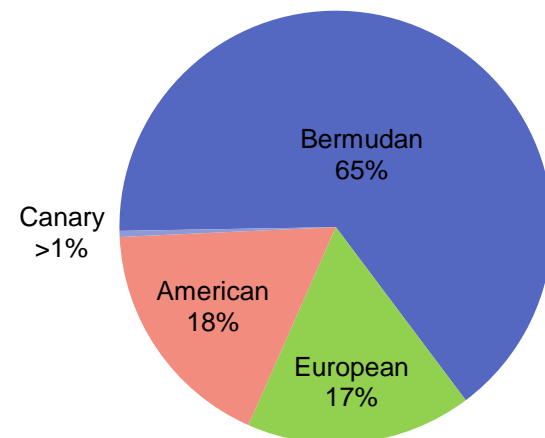
# Callable Bond Program

- Essential component of FHLBank core 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
- Approximately 15% of fixed rate callable bonds outstanding as of January 1, 2018 are SEC Rule 2a-7 eligible

## Callable Issuance by Lockout



## Callable Issuance by Option Type



# 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 combined with the “super lien” have shielded the FHLBanks from any credit losses on advances in the System’s 85 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



FHLBanks share joint & several liability to repay all senior debt obligations

# Investor Relations Contacts

---

**David Messerly**  
Director  
Global Investor Relations  
703-467-3609  
messerly@fhlb-of.com

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

## **FHLBanks Office of Finance**

**[www.fhlb-of.com](http://www.fhlb-of.com)**

**1818 Library Street  
Suite 200  
Reston, VA 20190**