

# UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

## Form 10-Q

**QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the quarterly period ended September 30, 2024

or

**TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from \_\_\_\_\_ to \_\_\_\_\_.

Commission File No. 000-51399

## FEDERAL HOME LOAN BANK OF CINCINNATI

*(Exact name of registrant as specified in its charter)*

Federally chartered corporation of the United States

*(State or other jurisdiction of incorporation or organization)*

600 Atrium Two, P.O. Box 598, Cincinnati, Ohio

*(Address of principal executive offices)*

31-6000228

*(I.R.S. Employer Identification No.)*

45201-0598

*(Zip Code)*

**(513) 852-7500**

*(Registrant's telephone number, including area code)*

Securities registered pursuant to Section 12(b) of the Act: None

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes  No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit such files).

Yes  No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated Filer

Accelerated Filer

Non-accelerated Filer

Smaller reporting company

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes  No

The capital stock of the registrant is not listed on any securities exchange or quoted on any automated quotation system, only may be owned by members and former members and is transferable only at its par value of \$100 per share. As of October 31, 2024, the registrant had 46,072,901 shares of capital stock outstanding, which included stock classified as mandatorily redeemable.

## **Table of Contents**

### **PART I - FINANCIAL INFORMATION**

Item 1.	Financial Statements (Unaudited):	
	Statements of Condition - September 30, 2024 and December 31, 2023	<a href="#">3</a>
	Statements of Income - Three and nine months ended September 30, 2024 and 2023	<a href="#">4</a>
	Statements of Comprehensive Income (Loss) - Three and nine months ended September 30, 2024 and 2023	<a href="#">5</a>
	Statements of Capital - Three and nine months ended September 30, 2024 and 2023	<a href="#">6</a>
	Statements of Cash Flows - Nine months ended September 30, 2024 and 2023	<a href="#">7</a>
	Notes to Unaudited Financial Statements	<a href="#">9</a>
Item 2.	Management's Discussion and Analysis of Financial Condition and Results of Operations	<a href="#">42</a>
Item 3.	Quantitative and Qualitative Disclosures About Market Risk	<a href="#">72</a>
Item 4.	Controls and Procedures	<a href="#">72</a>

### **PART II - OTHER INFORMATION**

Item 1.	Legal Proceedings	<a href="#">73</a>
Item 1A.	Risk Factors	<a href="#">73</a>
Item 2.	Unregistered Sales of Equity Securities and Use of Proceeds	<a href="#">73</a>
Item 3.	Defaults Upon Senior Securities	<a href="#">73</a>
Item 4.	Mine Safety Disclosures	<a href="#">73</a>
Item 5.	Other Information	<a href="#">73</a>
Item 6.	Exhibits	<a href="#">74</a>
	Signatures	<a href="#">75</a>

**PART I – FINANCIAL INFORMATION**

**Item 1. Financial Statements.**

**FEDERAL HOME LOAN BANK OF CINCINNATI  
STATEMENTS OF CONDITION  
(Unaudited)**

(In thousands, except par value)

	September 30, 2024	December 31, 2023
<b>ASSETS</b>		
Cash and due from banks	\$ 23,110	\$ 20,824
Interest-bearing deposits	2,380,216	1,875,037
Securities purchased under agreements to resell	1,760,330	5,242,480
Federal funds sold	7,800,000	6,774,000
Investment securities:		
Trading securities	2,818,916	1,745,742
Available-for-sale securities (amortized cost of \$9,230,552 and \$10,247,585 and includes \$852,788 and \$819,794 pledged as collateral that may be repledged)	9,181,986	10,171,588
Held-to-maturity securities (fair value of \$15,646,859 and \$16,576,613)	15,808,838	16,832,133
Total investment securities	<u>27,809,740</u>	<u>28,749,463</u>
Advances (includes \$276,966 and \$214,035 at fair value under fair value option)	80,178,573	73,553,162
Mortgage loans held for portfolio, net of allowance for credit losses of \$331 and \$316	7,188,246	7,108,334
Accrued interest receivable	517,137	535,564
Derivative assets	138,467	101,991
Other assets, net	31,584	34,883
<b>TOTAL ASSETS</b>	<u>\$ 127,827,403</u>	<u>\$ 123,995,738</u>
<b>LIABILITIES</b>		
Deposits	\$ 1,184,041	\$ 1,113,704
Consolidated Obligations:		
Discount Notes (includes \$4,342,390 and \$14,085,003 at fair value under fair value option)	16,182,559	23,690,526
Bonds (includes \$8,693,539 and \$20,657,254 at fair value under fair value option)	102,445,114	91,756,430
Total Consolidated Obligations	<u>118,627,673</u>	<u>115,446,956</u>
Mandatorily redeemable capital stock	15,276	17,314
Accrued interest payable	639,520	422,886
Affordable Housing Program payable	164,579	139,807
Derivative liabilities	1,639	9,831
Other liabilities	572,885	418,557
Total liabilities	<u>121,205,613</u>	<u>117,569,055</u>
Commitments and contingencies		
<b>CAPITAL</b>		
Capital stock Class B putable (\$100 par value); issued and outstanding shares: 48,792 and 48,459	4,879,193	4,845,902
Retained earnings:		
Unrestricted	1,008,160	964,436
Restricted	784,516	693,682
Total retained earnings	<u>1,792,676</u>	<u>1,658,118</u>
Accumulated other comprehensive income (loss)	<u>(50,079)</u>	<u>(77,337)</u>
Total capital	<u>6,621,790</u>	<u>6,426,683</u>
<b>TOTAL LIABILITIES AND CAPITAL</b>	<u>\$ 127,827,403</u>	<u>\$ 123,995,738</u>

The accompanying notes are an integral part of these financial statements.

**FEDERAL HOME LOAN BANK OF CINCINNATI**  
**STATEMENTS OF INCOME**  
**(Unaudited)**

(In thousands)	Three Months Ended September 30,		Nine Months Ended September 30,	
	2024	2023	2024	2023
<b>INTEREST INCOME:</b>				
Advances	\$ 1,099,084	\$ 1,057,139	\$ 3,235,711	\$ 3,393,005
Prepayment fees on Advances, net	90	1,248	588	2,982
Interest-bearing deposits	33,229	32,951	81,633	93,981
Securities purchased under agreements to resell	25,777	30,418	80,238	113,216
Federal funds sold	161,436	169,712	382,923	445,876
Investment securities:				
Trading securities	29,235	16,765	75,203	52,515
Available-for-sale securities	142,007	139,444	415,982	375,881
Held-to-maturity securities	216,744	217,242	660,107	577,707
Total investment securities	387,986	373,451	1,151,292	1,006,103
Mortgage loans held for portfolio	60,110	53,120	177,033	157,935
Loans to other FHLBanks	—	252	222	1,075
<b>Total interest income</b>	<b>1,767,712</b>	<b>1,718,291</b>	<b>5,109,640</b>	<b>5,214,173</b>
<b>INTEREST EXPENSE:</b>				
Consolidated Obligations:				
Discount Notes	240,109	446,222	774,910	1,761,955
Bonds	1,304,683	1,033,895	3,680,636	2,762,029
Total Consolidated Obligations	1,544,792	1,480,117	4,455,546	4,523,984
Deposits	13,845	14,909	42,620	38,854
Loans from other FHLBanks	1	1	1	1
Mandatorily redeemable capital stock	349	1,116	1,114	2,344
Other borrowings	—	—	—	1
<b>Total interest expense</b>	<b>1,558,987</b>	<b>1,496,143</b>	<b>4,499,281</b>	<b>4,565,184</b>
<b>NET INTEREST INCOME</b>	<b>208,725</b>	<b>222,148</b>	<b>610,359</b>	<b>648,989</b>
<b>NON-INTEREST INCOME (LOSS):</b>				
Net gains (losses) on trading securities	96,676	(37,562)	70,902	(38,848)
Net gains (losses) on sales of available-for-sale securities	(157)	—	1,268	—
Net gains (losses) on financial instruments held under fair value option	(15,510)	(24,103)	(23,365)	1,520
Net gains (losses) on derivatives	(80,205)	47,972	(51,816)	35,693
Other, net	8,071	7,962	24,054	22,445
<b>Total non-interest income (loss)</b>	<b>8,875</b>	<b>(5,731)</b>	<b>21,043</b>	<b>20,810</b>
<b>NON-INTEREST EXPENSE:</b>				
Compensation and benefits	13,710	13,422	42,295	41,140
Other operating expenses	9,412	8,504	28,118	23,575
Finance Agency	2,840	2,745	8,521	8,233
Office of Finance	1,654	1,542	5,053	4,781
Voluntary housing contributions	6,589	(2)	38,386	14,814
Other	1,051	1,527	4,268	5,150
<b>Total non-interest expense</b>	<b>35,256</b>	<b>27,738</b>	<b>126,641</b>	<b>97,693</b>
<b>INCOME BEFORE ASSESSMENTS</b>	<b>182,344</b>	<b>188,679</b>	<b>504,761</b>	<b>572,106</b>
Affordable Housing Program assessments	18,270	18,979	50,588	57,445
<b>NET INCOME</b>	<b>\$ 164,074</b>	<b>\$ 169,700</b>	<b>\$ 454,173</b>	<b>\$ 514,661</b>

The accompanying notes are an integral part of these financial statements.

**FEDERAL HOME LOAN BANK OF CINCINNATI**  
**STATEMENTS OF COMPREHENSIVE INCOME (LOSS)**  
**(Unaudited)**

<b>(In thousands)</b>	<u>Three Months Ended September 30,</u>		<u>Nine Months Ended September 30,</u>	
	<u>2024</u>	<u>2023</u>	<u>2024</u>	<u>2023</u>
<b>Net income</b>	\$ 164,074	\$ 169,700	\$ 454,173	\$ 514,661
<b>Other comprehensive income (loss) adjustments:</b>				
Net unrealized gains (losses) on available-for-sale securities	(25,006)	(16,122)	28,699	(760)
Reclassification adjustment for net realized (gains) losses on sale of available-for-sale securities included in net income	157	—	(1,268)	—
Pension and postretirement benefits	(91)	(98)	(173)	(294)
Total other comprehensive income (loss) adjustments	(24,940)	(16,220)	27,258	(1,054)
<b>Comprehensive income (loss)</b>	<u>\$ 139,134</u>	<u>\$ 153,480</u>	<u>\$ 481,431</u>	<u>\$ 513,607</u>

The accompanying notes are an integral part of these financial statements.

**FEDERAL HOME LOAN BANK OF CINCINNATI**  
**STATEMENTS OF CAPITAL**  
**(Unaudited)**

(In thousands)	Capital Stock Class B - Putable		Retained Earnings			Accumulated Other Comprehensive Income (Loss)	Total Capital
	Shares	Par Value	Unrestricted	Restricted	Total		
	<b>BALANCE, JUNE 30, 2023</b>	58,484	\$ 5,848,415	\$ 953,205	\$ 629,111		
Comprehensive income (loss)			135,761	33,939	169,700	(16,220)	153,480
Proceeds from issuance of capital stock	5,398	539,791					539,791
Repurchase of capital stock	(15,928)	(1,592,751)					(1,592,751)
Net stock reclassified to mandatorily redeemable capital stock	(2,599)	(259,908)					(259,908)
Cash dividends on capital stock			(133,137)		(133,137)		(133,137)
<b>BALANCE, SEPTEMBER 30, 2023</b>	<u>45,355</u>	<u>\$ 4,535,547</u>	<u>\$ 955,829</u>	<u>\$ 663,050</u>	<u>\$ 1,618,879</u>	<u>\$ (50,394)</u>	<u>\$ 6,104,032</u>
<b>BALANCE, JUNE 30, 2024</b>	47,915	\$ 4,791,545	\$ 980,980	\$ 751,701	\$ 1,732,681	\$ (25,139)	\$ 6,499,087
Comprehensive income (loss)			131,259	32,815	164,074	(24,940)	139,134
Proceeds from issuance of capital stock	8,628	862,758					862,758
Repurchase of capital stock	(7,739)	(773,951)					(773,951)
Net stock reclassified to mandatorily redeemable capital stock	(12)	(1,159)					(1,159)
Cash dividends on capital stock			(104,079)		(104,079)		(104,079)
<b>BALANCE, SEPTEMBER 30, 2024</b>	<u>48,792</u>	<u>\$ 4,879,193</u>	<u>\$ 1,008,160</u>	<u>\$ 784,516</u>	<u>\$ 1,792,676</u>	<u>\$ (50,079)</u>	<u>\$ 6,621,790</u>

(In thousands)	Capital Stock Class B - Putable		Retained Earnings			Accumulated Other Comprehensive Income (Loss)	Total Capital
	Shares	Par Value	Unrestricted	Restricted	Total		
	<b>BALANCE, DECEMBER 31, 2022</b>	51,507	\$ 5,150,679	\$ 840,774	\$ 560,118		
Comprehensive income (loss)			411,729	102,932	514,661	(1,054)	513,607
Proceeds from issuance of capital stock	41,693	4,169,315					4,169,315
Repurchase of capital stock	(42,112)	(4,211,156)					(4,211,156)
Net stock reclassified to mandatorily redeemable capital stock	(5,733)	(573,291)					(573,291)
Cash dividends on capital stock			(296,674)		(296,674)		(296,674)
<b>BALANCE, SEPTEMBER 30, 2023</b>	<u>45,355</u>	<u>\$ 4,535,547</u>	<u>\$ 955,829</u>	<u>\$ 663,050</u>	<u>\$ 1,618,879</u>	<u>\$ (50,394)</u>	<u>\$ 6,104,032</u>
<b>BALANCE, DECEMBER 31, 2023</b>	48,459	\$ 4,845,902	\$ 964,436	\$ 693,682	\$ 1,658,118	\$ (77,337)	\$ 6,426,683
Comprehensive income (loss)			363,339	90,834	454,173	27,258	481,431
Proceeds from issuance of capital stock	19,467	1,946,681					1,946,681
Repurchase of capital stock	(19,058)	(1,905,827)					(1,905,827)
Net stock reclassified to mandatorily redeemable capital stock	(76)	(7,563)					(7,563)
Cash dividends on capital stock			(319,615)		(319,615)		(319,615)
<b>BALANCE, SEPTEMBER 30, 2024</b>	<u>48,792</u>	<u>\$ 4,879,193</u>	<u>\$ 1,008,160</u>	<u>\$ 784,516</u>	<u>\$ 1,792,676</u>	<u>\$ (50,079)</u>	<u>\$ 6,621,790</u>

The accompanying notes are an integral part of these financial statements.

**FEDERAL HOME LOAN BANK OF CINCINNATI**  
**STATEMENTS OF CASH FLOWS**  
**(Unaudited)**

**(In thousands)**

	Nine Months Ended September 30,	
	2024	2023
<b>OPERATING ACTIVITIES:</b>		
Net income	\$ 454,173	\$ 514,661
Adjustments to reconcile net income to net cash provided by (used in) operating activities:		
Depreciation and amortization/(accretion)	(38,328)	142,801
Net change in derivative and hedging activities	(510,441)	182,704
Net change in fair value adjustments on trading securities	(70,902)	38,848
Net realized (gains) losses from sales of available-for-sale securities	(1,268)	—
Net change in fair value adjustments on financial instruments held under fair value option	23,365	(1,520)
Other adjustments, net	829	992
Net change in:		
Accrued interest receivable	18,001	(190,686)
Other assets	5,755	6,226
Accrued interest payable	62,620	413,090
Other liabilities	26,415	43,731
Total adjustments	(483,954)	636,186
Net cash provided by (used in) operating activities	(29,781)	1,150,847
<b>INVESTING ACTIVITIES:</b>		
Net change in:		
Interest-bearing deposits	(484,367)	146,160
Securities purchased under agreements to resell	3,482,150	(495,460)
Federal funds sold	(1,026,000)	(4,296,000)
Trading securities:		
Proceeds from maturities and paydowns	250,038	250,055
Purchases	(1,252,309)	—
Available-for-sale securities:		
Proceeds from maturities and paydowns	21,329	—
Proceeds from sales	2,182,572	—
Purchases	(808,450)	(1,190,444)
Held-to-maturity securities:		
Proceeds from maturities and paydowns	2,023,556	1,367,685
Purchases	(1,004,351)	(3,057,219)
Advances, net	(6,308,314)	(2,997,984)
Mortgage loans held for portfolio:		
Principal collected	486,200	461,990
Purchases	(579,175)	(391,216)
Premises, software, and equipment, net	(5,368)	(4,596)
Net cash provided by (used in) investing activities	(3,022,489)	(10,207,029)

The accompanying notes are an integral part of these financial statements.

(continued from previous page)

**FEDERAL HOME LOAN BANK OF CINCINNATI**  
**STATEMENTS OF CASH FLOWS**  
**(Unaudited)**

<b>(In thousands)</b>	Nine Months Ended September 30,	
	2024	2023
<b>FINANCING ACTIVITIES:</b>		
Net change in deposits	\$ (3,463)	\$ 423,158
Net proceeds from issuance of Consolidated Obligations:		
Discount Notes	81,661,500	145,979,044
Bonds	92,231,011	106,197,426
Bonds transferred from other FHLBanks	—	249,999
Payments for maturing and retiring Consolidated Obligations:		
Discount Notes	(89,112,457)	(162,509,982)
Discount Notes transferred to other FHLBanks	(998)	—
Bonds	(81,432,675)	(80,371,500)
Proceeds from issuance of capital stock	1,946,681	4,169,315
Payments for repurchase of capital stock	(1,905,827)	(4,211,156)
Payments for repurchase/redemption of mandatorily redeemable capital stock	(9,601)	(572,082)
Cash dividends paid	(319,615)	(296,674)
Net cash provided by (used in) financing activities	3,054,556	9,057,548
Net increase (decrease) in cash and due from banks	2,286	1,366
Cash and due from banks at beginning of the period	20,824	19,604
Cash and due from banks at end of the period	\$ 23,110	\$ 20,970
<b>Supplemental Disclosures:</b>		
Interest paid	\$ 4,379,597	\$ 4,327,012
Affordable Housing Program payments, net	\$ 45,840	\$ 19,500

The accompanying notes are an integral part of these financial statements.

## FEDERAL HOME LOAN BANK OF CINCINNATI

### NOTES TO UNAUDITED FINANCIAL STATEMENTS

#### Background Information

The Federal Home Loan Bank of Cincinnati (the FHLB), a federally chartered corporation, is one of 11 District Federal Home Loan Banks (FHLBanks). The FHLBanks are government-sponsored enterprises (GSEs) that were organized under the Federal Home Loan Bank Act of 1932, as amended (FHLBank Act), to serve the public by enhancing the availability of credit for residential mortgages and targeted community development. The FHLB is regulated by the Federal Housing Finance Agency (Finance Agency). The FHLBanks are financial cooperatives that provide a readily available, competitively-priced source of funds to their member institutions.

#### Note 1 - Basis of Presentation

The accompanying interim financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America (GAAP). The preparation of financial statements in accordance with GAAP requires management to make assumptions and estimates. These assumptions and estimates affect the reported amount of assets and liabilities, the disclosure of contingent assets and liabilities, and the reported amounts of income and expenses. Actual results could differ from these estimates. The interim financial statements presented are unaudited, but they include all adjustments (consisting of only normal recurring adjustments) which are, in the opinion of management, necessary for a fair presentation of the financial condition, results of operations, and cash flows for such periods. These financial statements do not include all disclosures associated with annual financial statements and accordingly should be read in conjunction with the audited financial statements and notes included in the FHLB's Annual Report on Form 10-K for the year ended December 31, 2023 filed with the Securities and Exchange Commission (SEC) on March 21, 2024. Results for the nine months ended September 30, 2024 are not necessarily indicative of operating results for the full year.

The FHLB presents certain financial instruments, including derivative instruments and securities purchased under agreements to resell, on a net basis when it has a legal right of offset and all other requirements for netting are met (collectively referred to as the netting requirements). For these instruments, the FHLB has elected to offset its asset and liability positions, as well as cash collateral received or pledged, when it has met the netting requirements. The FHLB did not have any offsetting liabilities related to its securities purchased under agreements to resell for the periods presented.

The net exposure for these financial instruments can change on a daily basis; therefore, there may be a delay between the time this exposure change is identified and additional collateral is requested, and the time this collateral is received or pledged. Likewise, there may be a delay for excess collateral to be returned. For derivative instruments that meet the requirements for netting, any excess cash collateral received or pledged is recognized as a derivative liability or derivative asset. Additional information regarding these agreements is provided in Note 6. Based on the fair value of the related collateral held, the securities purchased under agreements to resell were fully collateralized for the periods presented. For more information about the FHLB's investments in securities purchased under agreements to resell, see "Item 8. Financial Statements and Supplementary Data - Note 1 - Summary of Significant Accounting Policies" in the FHLB's 2023 Annual Report on Form 10-K.

#### *Subsequent Events*

The FHLB has evaluated subsequent events for potential recognition or disclosure through the issuance of these financial statements and believes there have been no material subsequent events requiring additional disclosure or recognition in these financial statements.

#### Note 2 - Recently Issued and Adopted Accounting Guidance

***Improvements to Reportable Segment Disclosures.*** In November 2023, the Financial Accounting Standards Board (FASB) issued guidance that improves reportable segment disclosure requirements, primarily through enhanced disclosures about significant segment expenses. Among other things, the new guidance requires disclosure of significant segment expenses that are regularly provided to the chief operating decision maker and included within each reported measure of segment profit or loss, requires segment disclosures for entities with a single reportable segment, and expands interim disclosure requirements.

The guidance becomes effective for the FHLB for the annual period ending December 31, 2024 and the interim periods thereafter. Early adoption is permitted. The FHLB does not intend to adopt this guidance early. At this time, the FHLB expects this new guidance will impact its disclosures, but will not have a material impact on its financial condition, results of operations, and cash flows.

**Note 3 - Investments**

The FHLB makes short-term investments in interest-bearing deposits, securities purchased under agreements to resell, and Federal funds sold and may make other investments in debt securities, which are classified as either trading, available-for-sale, or held-to-maturity.

*Interest-Bearing Deposits, Securities Purchased under Agreements to Resell, and Federal Funds Sold*

The FHLB invests in interest-bearing deposits, securities purchased under agreements to resell, and Federal funds sold to provide liquidity.

At September 30, 2024 and December 31, 2023, interest-bearing deposits and Federal funds sold were transacted with counterparties that have received a credit rating of single-A or greater by a nationally recognized statistical rating organization (NRSRO). Finance Agency regulations include a limit on the amount of unsecured credit the FHLB may extend to a counterparty. At September 30, 2024 and December 31, 2023, all investments in interest-bearing deposits and Federal funds sold were repaid or expected to be repaid according to their respective contractual terms. No allowance for credit losses was recorded for these assets at September 30, 2024 and December 31, 2023. Carrying values of interest-bearing deposits and Federal funds sold exclude accrued interest receivable of (in thousands) \$10,371 and \$1,046 as of September 30, 2024, and \$8,627 and \$3,006 as of December 31, 2023.

Securities purchased under agreements to resell are short-term and are structured such that they are evaluated regularly to determine if the market value of the underlying securities decreases below the market value required as collateral (i.e., subject to collateral maintenance provisions). If so, the counterparty must place an equivalent amount of additional securities as collateral or remit an equivalent amount of cash, generally by the next business day. Based upon the collateral held as security and collateral maintenance provisions with counterparties, the FHLB determined that no allowance for credit losses was needed for its securities purchased under agreements to resell at September 30, 2024 and December 31, 2023. The carrying value of securities purchased under agreements to resell excludes accrued interest receivable of (in thousands) \$281 and \$2,373 as of September 30, 2024 and December 31, 2023, respectively.

*Debt Securities*

The FHLB invests in debt securities, which are classified as either trading, available-for-sale, or held-to-maturity. The FHLB is prohibited by Finance Agency regulations from purchasing certain higher-risk securities, such as equity securities and debt instruments that are not investment quality, other than certain investments targeted at low-income persons or communities. The FHLB is not required to divest instruments that experience credit deterioration after their purchase.

*Trading Securities*

**Table 3.1 - Trading Securities by Major Security Types (in thousands)**

<b>Fair Value</b>	<b>September 30, 2024</b>	<b>December 31, 2023</b>
Non-mortgage-backed securities (non-MBS):		
U.S. Treasury obligations	\$ 1,303,136	\$ 248,688
GSE obligations	1,515,772	1,497,009
Total non-MBS	2,818,908	1,745,697
Mortgage-backed securities (MBS):		
U.S. obligation single-family	8	45
Total MBS	8	45
Total	\$ 2,818,916	\$ 1,745,742

**Table 3.2 - Net Gains (Losses) on Trading Securities (in thousands)**

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2024	2023	2024	2023
Net unrealized gains (losses) on trading securities held at period end	\$ 96,676	\$ (37,562)	\$ 69,590	\$ (40,255)
Net gains (losses) on trading securities sold/matured during the period	—	—	1,312	1,407
Net gains (losses) on trading securities	<u>\$ 96,676</u>	<u>\$ (37,562)</u>	<u>\$ 70,902</u>	<u>\$ (38,848)</u>

*Available-for-Sale Securities*

**Table 3.3 - Available-for-Sale Securities by Major Security Types (in thousands)**

	September 30, 2024			
	Amortized Cost <sup>(1)</sup>	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
<b>Non-MBS:</b>				
U.S. Treasury obligations	\$ 5,605,314	\$ 796	\$ (6,101)	\$ 5,600,009
GSE obligations	121,351	712	(2)	122,061
Total non-MBS	<u>5,726,665</u>	<u>1,508</u>	<u>(6,103)</u>	<u>5,722,070</u>
<b>MBS:</b>				
GSE multi-family	3,503,887	709	(44,680)	3,459,916
Total MBS	<u>3,503,887</u>	<u>709</u>	<u>(44,680)</u>	<u>3,459,916</u>
Total	<u>\$ 9,230,552</u>	<u>\$ 2,217</u>	<u>\$ (50,783)</u>	<u>\$ 9,181,986</u>
	December 31, 2023			
	Amortized Cost <sup>(1)</sup>	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
<b>Non-MBS:</b>				
U.S. Treasury obligations	\$ 7,630,467	\$ 564	\$ (19,212)	\$ 7,611,819
GSE obligations	119,366	575	(29)	119,912
Total non-MBS	<u>7,749,833</u>	<u>1,139</u>	<u>(19,241)</u>	<u>7,731,731</u>
<b>MBS:</b>				
GSE multi-family	2,497,752	97	(57,992)	2,439,857
Total MBS	<u>2,497,752</u>	<u>97</u>	<u>(57,992)</u>	<u>2,439,857</u>
Total	<u>\$ 10,247,585</u>	<u>\$ 1,236</u>	<u>\$ (77,233)</u>	<u>\$ 10,171,588</u>

(1) Amortized cost of available-for-sale securities includes adjustments made to the cost basis of an investment for accretion, amortization, and/or fair value hedge accounting adjustments, and excludes accrued interest receivable of (in thousands) \$35,020 and \$47,969 at September 30, 2024 and December 31, 2023, respectively.

Table 3.4 summarizes the available-for-sale securities with gross unrealized losses, which are aggregated by major security type and length of time that individual securities have been in a continuous gross unrealized loss position.

**Table 3.4 - Available-for-Sale Securities in a Continuous Gross Unrealized Loss Position (in thousands)**

	September 30, 2024					
	Less than 12 Months		12 Months or more		Total	
	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses
Non-MBS:						
U.S. Treasury obligations	\$4,037,681	\$ (3,893)	\$ 937,059	\$ (2,208)	\$4,974,740	\$ (6,101)
GSE obligations	4,595	(2)	—	—	4,595	(2)
Total non-MBS	4,042,276	(3,895)	937,059	(2,208)	4,979,335	(6,103)
MBS:						
GSE multi-family MBS	1,607,824	(7,777)	1,523,267	(36,903)	3,131,091	(44,680)
Total MBS	1,607,824	(7,777)	1,523,267	(36,903)	3,131,091	(44,680)
Total	\$5,650,100	\$ (11,672)	\$2,460,326	\$ (39,111)	\$8,110,426	\$ (50,783)

  

	December 31, 2023					
	Less than 12 Months		12 Months or more		Total	
	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses
Non-MBS:						
U.S. Treasury obligations	\$5,738,322	\$ (14,385)	\$ 907,749	\$ (4,827)	\$6,646,071	\$ (19,212)
GSE obligations	—	—	4,478	(29)	4,478	(29)
Total non-MBS	5,738,322	(14,385)	912,227	(4,856)	6,650,549	(19,241)
MBS:						
GSE multi-family MBS	1,103,524	(12,797)	1,196,774	(45,195)	2,300,298	(57,992)
Total MBS	1,103,524	(12,797)	1,196,774	(45,195)	2,300,298	(57,992)
Total	\$6,841,846	\$ (27,182)	\$2,109,001	\$ (50,051)	\$8,950,847	\$ (77,233)

**Table 3.5 - Available-for-Sale Securities by Contractual Maturity (in thousands)**

Year of Maturity	September 30, 2024		December 31, 2023	
	Amortized Cost	Fair Value	Amortized Cost	Fair Value
Non-MBS:				
Due in 1 year or less	\$ 9,900	\$ 9,922	\$ —	\$ —
Due after 1 year through 5 years	5,706,296	5,701,608	7,010,815	6,994,480
Due after 5 years through 10 years	10,469	10,540	728,761	726,993
Due after 10 years	—	—	10,257	10,258
Total non-MBS	5,726,665	5,722,070	7,749,833	7,731,731
MBS <sup>(1)</sup>	3,503,887	3,459,916	2,497,752	2,439,857
Total	\$ 9,230,552	\$ 9,181,986	\$ 10,247,585	\$ 10,171,588

(1) MBS are not presented by contractual maturity because their expected maturities will likely differ from contractual maturities because borrowers may have the right to call or prepay obligations with or without call or prepayment fees.

**Table 3.6 - Interest Rate Payment Terms of Available-for-Sale Securities (in thousands)**

	<u>September 30, 2024</u>	<u>December 31, 2023</u>
Amortized cost of non-MBS:		
Fixed-rate	\$ 5,726,665	\$ 7,749,833
Total amortized cost of non-MBS	<u>5,726,665</u>	<u>7,749,833</u>
Amortized cost of MBS:		
Fixed-rate	3,503,887	2,497,752
Total amortized cost of MBS	<u>3,503,887</u>	<u>2,497,752</u>
Total	<u>\$ 9,230,552</u>	<u>\$ 10,247,585</u>

*Realized Gains and Losses.* During the three and nine months ended September 30, 2024, for strategic and economic reasons, the FHLB sold a portion of available-for-sale securities. These securities had an amortized cost (determined by the specific identification method) of (in thousands) \$977,481 and \$2,181,304, respectively. During the three and nine months ended September 30, 2024, proceeds from the sales totaled (in thousands) \$977,324 and \$2,182,572, respectively, resulting in realized gains (losses) of (in thousands) \$(157) and \$1,268, respectively. The FHLB had no sales of securities out of its available-for-sale portfolio for the three and nine months ended September 30, 2023.

#### *Held-to-Maturity Securities*

**Table 3.7 - Held-to-Maturity Securities by Major Security Types (in thousands)**

	<u>September 30, 2024</u>			
	<u>Amortized Cost <sup>(1)</sup></u>	<u>Gross Unrecognized Holding Gains</u>	<u>Gross Unrecognized Holding Losses</u>	<u>Fair Value</u>
Non-MBS:				
U.S. Treasury obligations	\$ 49,312	\$ 80	\$ —	\$ 49,392
Total non-MBS	<u>49,312</u>	<u>80</u>	<u>—</u>	<u>49,392</u>
MBS:				
U.S. obligation single-family	1,027,870	—	(109,209)	918,661
GSE single-family	3,475,146	39,188	(53,187)	3,461,147
GSE multi-family	11,256,510	3,412	(42,263)	11,217,659
Total MBS	<u>15,759,526</u>	<u>42,600</u>	<u>(204,659)</u>	<u>15,597,467</u>
Total	<u>\$ 15,808,838</u>	<u>\$ 42,680</u>	<u>\$ (204,659)</u>	<u>\$ 15,646,859</u>
	<u>December 31, 2023</u>			
	<u>Amortized Cost <sup>(1)</sup></u>	<u>Gross Unrecognized Holding Gains</u>	<u>Gross Unrecognized Holding Losses</u>	<u>Fair Value</u>
Non-MBS:				
U.S. Treasury obligations	\$ 49,078	\$ —	\$ (6)	\$ 49,072
Total non-MBS	<u>49,078</u>	<u>—</u>	<u>(6)</u>	<u>49,072</u>
MBS:				
U.S. obligation single-family	1,109,265	—	(129,457)	979,808
GSE single-family	3,146,571	23,124	(79,336)	3,090,359
GSE multi-family	12,527,219	2,159	(72,004)	12,457,374
Total MBS	<u>16,783,055</u>	<u>25,283</u>	<u>(280,797)</u>	<u>16,527,541</u>
Total	<u>\$ 16,832,133</u>	<u>\$ 25,283</u>	<u>\$ (280,803)</u>	<u>\$ 16,576,613</u>

(1) Carrying value equals amortized cost. Amortized cost of held-to-maturity securities includes adjustments made to the cost basis of an investment for accretion and amortization and excludes accrued interest receivable of (in thousands) \$61,783 and \$68,866 at September 30, 2024 and December 31, 2023, respectively.

**Table 3.8 - Held-to-Maturity Securities by Contractual Maturity (in thousands)**

<u>Year of Maturity</u>	<u>September 30, 2024</u>		<u>December 31, 2023</u>	
	<u>Amortized Cost <sup>(1)</sup></u>	<u>Fair Value</u>	<u>Amortized Cost <sup>(1)</sup></u>	<u>Fair Value</u>
Non-MBS:				
Due in 1 year or less	\$ 49,312	\$ 49,392	\$ 49,078	\$ 49,072
Due after 1 year through 5 years	—	—	—	—
Due after 5 years through 10 years	—	—	—	—
Due after 10 years	—	—	—	—
Total non-MBS	49,312	49,392	49,078	49,072
MBS <sup>(2)</sup>	15,759,526	15,597,467	16,783,055	16,527,541
Total	<u>\$ 15,808,838</u>	<u>\$ 15,646,859</u>	<u>\$ 16,832,133</u>	<u>\$ 16,576,613</u>

(1) Carrying value equals amortized cost.

(2) MBS are not presented by contractual maturity because their expected maturities will likely differ from contractual maturities because borrowers may have the right to call or prepay obligations with or without call or prepayment fees.

**Table 3.9 - Interest Rate Payment Terms of Held-to-Maturity Securities (in thousands)**

	<u>September 30, 2024</u>	<u>December 31, 2023</u>
Amortized cost of non-MBS:		
Fixed-rate	\$ 49,312	\$ 49,078
Total amortized cost of non-MBS	49,312	49,078
Amortized cost of MBS:		
Fixed-rate	4,376,551	4,118,328
Variable-rate	11,382,975	12,664,727
Total amortized cost of MBS	15,759,526	16,783,055
Total	<u>\$ 15,808,838</u>	<u>\$ 16,832,133</u>

For the nine months ended September 30, 2024 and 2023, the FHLB did not sell any held-to-maturity securities.

#### *Allowance for Credit Losses on Available-for-Sale and Held-to-Maturity Securities*

The FHLB evaluates available-for-sale and held-to-maturity investment securities for credit losses on a quarterly basis. The FHLB's available-for-sale and held-to-maturity securities are U.S. Treasury obligations, GSE obligations, and MBS issued by Fannie Mae, Freddie Mac and Ginnie Mae that are backed by single-family or multi-family mortgage loans. The FHLB only purchases securities considered investment quality. At September 30, 2024 and December 31, 2023, all available-for-sale and held-to-maturity securities were rated single-A, or above, by an NRSRO, based on the lowest long-term credit rating for each security owned by the FHLB. The FHLB's internal ratings of these securities may differ from those obtained from an NRSRO.

The FHLB evaluates individual available-for-sale securities for impairment by comparing the security's fair value to its amortized cost. Impairment may exist when the fair value of the investment is less than its amortized cost (i.e., in an unrealized loss position). At September 30, 2024 and December 31, 2023, certain available-for-sale securities were in an unrealized loss position. These losses are considered temporary as the FHLB expects to recover the entire amortized cost basis on these available-for-sale investment securities and does not intend to sell these securities nor considers it more likely than not that it will be required to sell these securities before the anticipated recovery of each security's remaining amortized cost basis. Further, the FHLB has not experienced any payment defaults on the instruments at September 30, 2024 or December 31, 2023 and all of these securities are highly-rated. In the case of U.S. obligations, they carry an explicit government guarantee. In the case of GSE securities, they are purchased under the assumption that the issuers' obligation to pay principal and interest on those securities will be honored, taking into account their status as GSEs. As a result, no allowance for credit losses was recorded on these available-for-sale securities at September 30, 2024 and December 31, 2023.

The FHLB evaluates its held-to-maturity securities for impairment on a collective, or pooled basis, unless an individual assessment is deemed necessary because the securities do not possess similar risk characteristics. As of September 30, 2024 and December 31, 2023, the FHLB had not established an allowance for credit loss on any held-to-maturity securities because the securities: (1) were all highly-rated and/or had short remaining terms to maturity, (2) had not experienced, nor did the FHLB

expect, any payment defaults on the instruments, (3) in the case of U.S. obligations, the securities carry an explicit government guarantee such that the FHLB considered the risk of nonpayment to be zero, and (4) in the case of GSE securities, they are purchased under an assumption that the issuers' obligation to pay principal and interest on those securities will be honored, taking into account their status as GSEs.

**Note 4 - Advances**

The following table presents Advance redemptions by contractual maturity, including index-amortizing Advances, which are presented according to their predetermined amortization schedules.

**Table 4.1 - Advances by Redemption Term (dollars in thousands)**

<b>Redemption Term</b>	<b>September 30, 2024</b>		<b>December 31, 2023</b>	
	<b>Amount</b>	<b>Weighted Average Interest Rate</b>	<b>Amount</b>	<b>Weighted Average Interest Rate</b>
Overdrawn demand deposit accounts	\$ 159	4.78 %	\$ 458	5.54 %
Due in 1 year or less	35,198,107	5.07	31,560,442	5.42
Due after 1 year through 2 years	24,320,338	5.06	10,707,268	5.18
Due after 2 years through 3 years	9,656,802	4.29	17,456,336	5.28
Due after 3 years through 4 years	4,601,662	4.13	4,668,018	3.90
Due after 4 years through 5 years	4,870,413	5.13	7,677,484	5.05
Thereafter	1,298,624	2.55	1,567,786	2.52
Total principal amount	79,946,105	4.88	73,637,792	5.15
Commitment fees	(67)		(81)	
Discounts	(1,121)		(1,463)	
Fair value hedging adjustments	226,781		(87,501)	
Fair value option valuation adjustments and accrued interest	6,875		4,415	
Total <sup>(1)</sup>	<u>\$ 80,178,573</u>		<u>\$ 73,553,162</u>	

(1) Carrying values exclude accrued interest receivable of (in thousands) \$355,198 and \$366,930 at September 30, 2024 and December 31, 2023, respectively.

The FHLB offers certain fixed- and variable-rate Advances to members that may be prepaid on specified dates (call dates) without incurring prepayment or termination fees (callable Advances). Other Advances may only be prepaid subject to a prepayment fee paid to the FHLB that makes the FHLB financially indifferent to the prepayment of the Advance.

**Table 4.2 - Advances by Redemption Term or Next Call Date (in thousands)**

<b>Redemption Term or Next Call Date</b>	<b>September 30, 2024</b>	<b>December 31, 2023</b>
Overdrawn demand deposit accounts	\$ 159	\$ 458
Due in 1 year or less	42,708,578	34,560,442
Due after 1 year through 2 years	16,842,958	15,207,268
Due after 2 years through 3 years	9,657,378	9,988,956
Due after 3 years through 4 years	8,579,042	8,668,018
Due after 4 years through 5 years	859,366	3,644,864
Thereafter	1,298,624	1,567,786
Total principal amount	<u>\$ 79,946,105</u>	<u>\$ 73,637,792</u>

The FHLB also offers puttable Advances. With a puttable Advance, the FHLB effectively purchases put options from the member that allows the FHLB to terminate the Advance at predetermined dates. The FHLB normally would exercise its put option when interest rates increase relative to contractual rates.

**Table 4.3 - Advances by Redemption Term or Next Put Date for Putable Advances (in thousands)**

<b>Redemption Term or Next Put Date</b>	<b>September 30, 2024</b>	<b>December 31, 2023</b>
Overdrawn demand deposit accounts	\$ 159	\$ 458
Due in 1 year or less	35,718,107	31,985,442
Due after 1 year through 2 years	24,340,338	10,772,268
Due after 2 years through 3 years	9,621,802	17,471,336
Due after 3 years through 4 years	4,526,662	4,668,018
Due after 4 years through 5 years	4,835,413	7,577,484
Thereafter	903,624	1,162,786
Total principal amount	<u>\$ 79,946,105</u>	<u>\$ 73,637,792</u>

**Table 4.4 - Advances by Interest Rate Payment Terms (in thousands)**

	<b>September 30, 2024</b>	<b>December 31, 2023</b>
Total fixed-rate <sup>(1)</sup>	\$ 47,693,931	\$ 42,114,739
Total variable-rate <sup>(1)</sup>	32,252,174	31,523,053
Total principal amount	<u>\$ 79,946,105</u>	<u>\$ 73,637,792</u>

(1) Payment terms based on current interest rate terms, which reflect any option exercises or rate conversions that have occurred subsequent to the related Advance issuance.

*Credit Risk Exposure and Security Terms*

The FHLB manages its credit exposure to Advances through an integrated approach that includes establishing a credit limit for each borrower and ongoing review of each borrower's financial condition, coupled with collateral and lending policies to limit risk of loss while balancing borrowers' needs for a reliable source of funding.

In addition, the FHLB lends to eligible borrowers in accordance with federal law and Finance Agency regulations, which require the FHLB to obtain sufficient collateral to fully secure credit products. Under these regulations, collateral eligible to secure new or renewed Advances includes:

- one-to-four family mortgage loans (delinquent for no more than 60 days) and multi-family mortgage loans (delinquent for no more than 30 days) and securities representing such mortgages;
- loans and securities issued and insured, or guaranteed by the U.S. government or any U.S. government agency (for example, mortgage-backed securities issued or guaranteed by Fannie Mae, Freddie Mac, or Ginnie Mae);
- cash or deposits in the FHLB;
- certain other collateral that is real estate-related, provided that the collateral has a readily ascertainable value, can be reliably discounted to account for liquidation and other risks, can be liquidated in due course and the FHLB can perfect a security interest in it; and
- certain qualifying securities representing undivided equity interests in eligible Advance collateral.

Residential mortgage loans are the principal form of collateral for Advances. The estimated value of the collateral required to secure each member's credit products is calculated by applying collateral discounts, or haircuts, to the value of the collateral. In addition, community financial institutions are eligible to utilize expanded statutory collateral provisions for small business and agribusiness loans. The FHLB's capital stock owned by its member borrowers is also pledged as collateral. Collateral arrangements and a member's borrowing capacity vary based on the financial condition and performance of the institution, the types of collateral pledged and the overall quality of those assets. The FHLB can also require additional or substitute collateral to protect its security interest. The FHLB also has policies and procedures for validating the reasonableness of its collateral valuations and makes changes to its collateral guidelines, as necessary, based on current market conditions. In addition, collateral verifications and reviews are performed by the FHLB based on the risk profile of the borrower. Management of the FHLB believes that these policies effectively manage the FHLB's credit risk from Advances.

Members experiencing financial difficulties are subject to FHLB-performed "stress tests" to evaluate the impact of poorly performing assets on the member's capital and loss reserve positions. Depending on the results of these tests, a member may be allowed to maintain pledged loan assets in its custody, may be required to deliver those loans into the custody of the FHLB or its agent, or may be required to provide details on those loans to facilitate an estimate of their fair value. The FHLB perfects its security interest in all pledged collateral. The FHLBank Act affords any security interest granted to the FHLB by a member

priority over the claims or rights of any other party except for claims or rights of a third party that would otherwise be entitled to priority under applicable law and that are held by a bona fide purchaser for value or by a secured party holding a prior perfected security interest.

The FHLB considers each borrower's ability to repay, payment status, as well as the types and levels of collateral to be the primary indicators of credit quality for its credit products. At September 30, 2024 and December 31, 2023, the FHLB did not have any Advances that were past due, in non-accrual status or considered impaired. In addition, there were no modifications of Advances with borrowers experiencing financial difficulty during the nine months ended September 30, 2024 or 2023. At September 30, 2024 and December 31, 2023, the FHLB had rights to collateral on a member-by-member basis with an estimated value in excess of its outstanding extensions of credit.

Based upon the collateral held as security, its credit extension and collateral policies and the repayment history on Advances, the FHLB did not expect any credit losses on Advances as of September 30, 2024 and, therefore, no allowance for credit losses on Advances was recorded. For the same reasons, the FHLB did not record any allowance for credit losses on Advances at December 31, 2023.

*Advance Concentrations*

**Table 4.5 - Borrowers Holding Five Percent or more of Total Advances, Including Any Known Affiliates that are Members of the FHLB (dollars in millions)**

<b>September 30, 2024</b>			<b>December 31, 2023</b>		
	<b>Principal</b>	<b>% of Total Principal Amount of Advances</b>		<b>Principal</b>	<b>% of Total Principal Amount of Advances</b>
U.S. Bank, N.A.	\$ 19,500	24 %	JPMorgan Chase Bank, N.A.	\$ 14,000	19 %
JPMorgan Chase Bank, N.A.	14,000	18	U.S. Bank, N.A.	10,000	14
Keybank, N.A.	4,832	6	Keybank, N.A.	9,836	13
Third Federal Savings and Loan Association	4,771	6	Third Federal Savings and Loan Association	5,008	7
The Huntington National Bank	4,501	6	Fifth Third Bank	4,001	5
Total	<u>\$ 47,604</u>	<u>60 %</u>	Total	<u>\$ 42,845</u>	<u>58 %</u>

**Note 5 - Mortgage Loans**

Total mortgage loans held for portfolio represent residential mortgage loans under the Mortgage Purchase Program (MPP) that the FHLB's members originate, credit enhance, and then sell to the FHLB. The FHLB does not service any of these loans.

**Table 5.1 - Mortgage Loans Held for Portfolio (in thousands)**

	<b>September 30, 2024</b>	<b>December 31, 2023</b>
Fixed rate medium-term single-family mortgage loans <sup>(1)</sup>	\$ 492,150	\$ 462,554
Fixed rate long-term single-family mortgage loans <sup>(2)</sup>	6,544,733	6,497,563
Total unpaid principal balance	7,036,883	6,960,117
Premiums	150,033	146,380
Discounts	(3,794)	(3,200)
Hedging basis adjustments <sup>(3)</sup>	5,455	5,353
Total mortgage loans held for portfolio <sup>(4)</sup>	7,188,577	7,108,650
Allowance for credit losses on mortgage loans	(331)	(316)
Mortgage loans held for portfolio, net	<u>\$ 7,188,246</u>	<u>\$ 7,108,334</u>

(1) Medium-term is defined as an original term of 15 years or less.

(2) Long-term is defined as an original term of greater than 15 years up to 30 years.

(3) Represents the unamortized balance of the mortgage purchase commitments' market values at the time of settlement. The market value of the commitment is included in the basis of the mortgage loan and amortized accordingly.

(4) Excludes accrued interest receivable of (in thousands) \$24,877 and \$23,193 at September 30, 2024 and December 31, 2023, respectively.

**Table 5.2 - Mortgage Loans Held for Portfolio by Collateral/Guarantee Type (in thousands)**

	<b>September 30, 2024</b>	<b>December 31, 2023</b>
Conventional mortgage loans	\$ 6,950,657	\$ 6,863,020
Federal Housing Administration (FHA) mortgage loans	86,226	97,097
Total unpaid principal balance	<u>\$ 7,036,883</u>	<u>\$ 6,960,117</u>

**Table 5.3 - Members, Including Any Known Affiliates that are Members of the FHLB, and Former Members Selling Five Percent or more of Total Unpaid Principal (dollars in millions)**

	<b>September 30, 2024</b>			<b>December 31, 2023</b>	
	<b>Principal</b>	<b>% of Total</b>		<b>Principal</b>	<b>% of Total</b>
Union Savings Bank	\$ 1,481	21 %	Union Savings Bank	\$ 1,513	22 %
FirstBank	694	10	FirstBank	725	10
LCNB National Bank	444	6	Guardian Savings Bank FSB	405	6
Guardian Savings Bank FSB	396	6	The Huntington National Bank	404	6
The Huntington National Bank	392	6			

*Credit Risk Exposure*

The FHLB manages credit risk exposure for conventional mortgage loans primarily through conservative underwriting and purchasing loans with characteristics consistent with favorable expected credit performance and by applying various credit enhancements.

*Credit Enhancements.* The conventional mortgage loans under the MPP are primarily supported by some combination of credit enhancements (primary mortgage insurance (PMI) and the Lender Risk Account (LRA), including pooled LRA for those members participating in an aggregated MPP pool). These credit enhancements apply after a homeowner's equity is exhausted. The LRA is funded by the FHLB upfront as a portion of the purchase proceeds to cover potential credit losses. The LRA is recorded in other liabilities in the Statements of Condition. Excess funds from the LRA are released to the member in accordance with the terms of the Master Commitment Contract, which is typically after five years, subject to performance of the related loan pool. Because the FHA makes an explicit guarantee on FHA mortgage loans, the FHLB does not require any credit enhancements on these loans beyond primary mortgage insurance.

**Table 5.4 - Changes in the LRA (in thousands)**

	<b>Nine Months Ended September 30, 2024</b>	
LRA at beginning of year	\$	239,051
Additions		12,317
Claims		(30)
Scheduled distributions		(12,198)
LRA at end of period	\$	<u>239,140</u>

*Payment Status of Mortgage Loans.* The key credit quality indicator for conventional mortgage loans is payment status, which allows the FHLB to monitor borrower performance. Past due loans are those where the borrower has failed to make a full payment of principal and interest within one month of its due date. Table 5.5 presents the payment status of conventional mortgage loans.

**Table 5.5 - Credit Quality Indicator of Conventional Mortgage Loans (in thousands)**

	<b>September 30, 2024</b>		
	<b>Origination Year</b>		
	<b>Prior to 2020</b>	<b>2020 to September 30, 2024</b>	<b>Total</b>
Payment status, at amortized cost:			
Past due 30-59 days	\$ 13,260	\$ 15,503	\$ 28,763
Past due 60-89 days	3,299	2,299	5,598
Past due 90 days or more	6,843	1,894	8,737
Total past due mortgage loans	23,402	19,696	43,098
Current mortgage loans	2,887,620	4,171,058	7,058,678
Total conventional mortgage loans	<u>\$ 2,911,022</u>	<u>\$ 4,190,754</u>	<u>\$ 7,101,776</u>

  

	<b>December 31, 2023</b>		
	<b>Origination Year</b>		
	<b>Prior to 2019</b>	<b>2019 to 2023</b>	<b>Total</b>
Payment status, at amortized cost:			
Past due 30-59 days	\$ 15,870	\$ 13,220	\$ 29,090
Past due 60-89 days	2,989	821	3,810
Past due 90 days or more	7,379	2,568	9,947
Total past due mortgage loans	26,238	16,609	42,847
Current mortgage loans	2,316,368	4,651,660	6,968,028
Total conventional mortgage loans	<u>\$ 2,342,606</u>	<u>\$ 4,668,269</u>	<u>\$ 7,010,875</u>

Other delinquency statistics include loans in process of foreclosure, serious delinquency rates, loans past due 90 days or more and still accruing interest, and non-accrual loans. Table 5.6 presents other delinquency statistics of mortgage loans.

**Table 5.6 - Other Delinquency Statistics (dollars in thousands)**

Amortized Cost:	September 30, 2024		
	Conventional MPP Loans	FHA Loans	Total
In process of foreclosure <sup>(1)</sup>	\$ 3,447	\$ 141	\$ 3,588
Serious delinquency rate <sup>(2)</sup>	0.12 %	0.60 %	0.13 %
Past due 90 days or more still accruing interest <sup>(3)</sup>	\$ 8,037	\$ 517	\$ 8,554
Loans on non-accrual status <sup>(4)</sup>	\$ 1,423	\$ —	\$ 1,423

  

Amortized Cost:	December 31, 2023		
	Conventional MPP Loans	FHA Loans	Total
In process of foreclosure <sup>(1)</sup>	\$ 5,826	\$ 134	\$ 5,960
Serious delinquency rate <sup>(2)</sup>	0.14 %	0.98 %	0.16 %
Past due 90 days or more still accruing interest <sup>(3)</sup>	\$ 9,383	\$ 959	\$ 10,342
Loans on non-accrual status <sup>(4)</sup>	\$ 1,294	\$ —	\$ 1,294

- (1) Includes loans where the decision of foreclosure or a similar alternative such as pursuit of deed-in-lieu has been reported.
- (2) Loans that are 90 days or more past due or in the process of foreclosure (including past due or current loans in the process of foreclosure) expressed as a percentage of the total loan portfolio class.
- (3) Each conventional loan past due 90 days or more still accruing interest is on a schedule/scheduled monthly settlement basis and contains one or more credit enhancements. Loans that are well secured and in the process of collection as a result of remaining credit enhancements and schedule/scheduled settlement are not placed on non-accrual status.
- (4) At September 30, 2024 and December 31, 2023, (in thousands) \$1,016 and \$1,162, respectively, of conventional MPP loans on non-accrual status do not have a related allowance because these loans were either previously charged off to their expected recoverable value and/or the fair value of the underlying collateral, including any credit enhancements, is greater than the amortized cost of the loans.

The FHLB did not have any real estate owned at September 30, 2024 or December 31, 2023.

*Mortgage Loan Modifications.* Under certain circumstances, the FHLB offers loan modifications within its MPP. Most commonly, loan modifications consist of capitalization of any past due interest with a corresponding increase in unpaid principal and a recast of the monthly principal and interest payment. Less frequently, loan modifications may include interest rate reductions, term extensions, balloon payments, or a combination of these types. The amortized cost basis of mortgage loans modified with borrowers experiencing financial difficulty during the three months ended September 30, 2024 and 2023 was (in thousands) \$600 and \$745, respectively, and during the nine months ended September 30, 2024 and 2023 was (in thousands) \$1,960 and \$3,594, respectively. The financial effect of the modifications was not material to the FHLB's financial condition or results of operations.

*Allowance for Credit Losses.* At September 30, 2024 and December 31, 2023 the FHLB's allowance for credit losses on its conventional mortgage loans held for portfolio was (in thousands) \$331 and \$316, respectively. For additional information on the FHLB's methodology to determine current expected credit losses, see Note 6 - Mortgage Loans in the FHLB's 2023 Annual Report on Form 10-K.

## **Note 6 - Derivatives and Hedging Activities**

### *Nature of Business Activity*

The FHLB is exposed to interest rate risk primarily from the effect of changes in interest rates. The goal of the FHLB's interest-rate risk management strategy is not to eliminate interest-rate risk, but to manage it within appropriate limits. To mitigate the risk of loss, the FHLB has established policies and procedures, which include guidelines on the amount of exposure to interest rate changes it is willing to accept. In addition, the FHLB monitors the risk to its interest income, net interest margin and average maturity of interest-earning assets and interest-bearing liabilities. The FHLB uses derivatives when they are considered to be the most cost-effective alternative to achieve the FHLB's financial and risk management objectives. See Note 7 - Derivatives and Hedging Activities in the FHLB's 2023 Annual Report on Form 10-K for additional information on the FHLB's derivative transactions.

The FHLB transacts its derivatives with counterparties that are large banks and major broker-dealers. Some of these banks and broker-dealers or their affiliates buy, sell, and distribute Consolidated Obligations. Derivative transactions may be executed either with a counterparty, referred to as uncleared derivatives, or cleared through a Futures Commission Merchant (i.e., clearing agent) with a Derivative Clearing Organization, referred to as cleared derivatives. The FHLB is not a derivative dealer and does not trade derivatives for short-term profit.

### *Financial Statement Effect and Additional Financial Information*

The notional amount of derivatives serves as a factor in determining periodic interest payments or cash flows received and paid. The notional amount reflects the FHLB's involvement in the various classes of financial instruments and represents neither the actual amounts exchanged nor the overall exposure of the FHLB to credit and market risk. The risks of derivatives only can be measured meaningfully on a portfolio basis that takes into account the counterparties, the types of derivatives, the items being hedged and any offsets between the derivatives and the items being hedged.

Table 6.1 summarizes the notional amount and fair value of derivative instruments and total derivative assets and liabilities. Total derivative assets and liabilities include the effect of netting adjustments and cash collateral. For purposes of this disclosure, the derivative values include the fair value of derivatives and the related accrued interest.

**Table 6.1 - Fair Value of Derivative Instruments (in thousands)**

	<b>September 30, 2024</b>		
	<b>Notional Amount of Derivatives</b>	<b>Derivative Assets</b>	<b>Derivative Liabilities</b>
Derivatives designated as fair value hedging instruments:			
Interest rate swaps	\$ 44,661,895	\$ 74,471	\$ 17,160
Derivatives not designated as hedging instruments:			
Interest rate swaps	16,005,020	46,600	19,225
Interest rate swaptions	350,000	3,776	—
Mortgage delivery commitments	37,355	72	76
Total derivatives not designated as hedging instruments	16,392,375	50,448	19,301
Total derivatives before adjustments	<u>\$ 61,054,270</u>	<u>124,919</u>	<u>36,461</u>
Netting adjustments and cash collateral <sup>(1)</sup>		13,548	(34,822)
Total derivative assets and total derivative liabilities		<u>\$ 138,467</u>	<u>\$ 1,639</u>
		<b>December 31, 2023</b>	
	<b>Notional Amount of Derivatives</b>	<b>Derivative Assets</b>	<b>Derivative Liabilities</b>
Derivatives designated as fair value hedging instruments:			
Interest rate swaps	\$ 41,383,192	\$ 9,352	\$ 34,302
Derivatives not designated as hedging instruments:			
Interest rate swaps	36,585,870	141,676	23,465
Interest rate swaptions	425,000	2,748	—
Mortgage delivery commitments	100,924	1,202	6
Total derivatives not designated as hedging instruments	37,111,794	145,626	23,471
Total derivatives before adjustments	<u>\$ 78,494,986</u>	<u>154,978</u>	<u>57,773</u>
Netting adjustments and cash collateral <sup>(1)</sup>		(52,987)	(47,942)
Total derivative assets and total derivative liabilities		<u>\$ 101,991</u>	<u>\$ 9,831</u>

(1) Amounts represent the application of the netting requirements that allow the FHLB to settle positive and negative positions, and also cash collateral, including accrued interest, held or placed by the FHLB with the same clearing agent and/or counterparty. Cash collateral posted, including accrued interest, was (in thousands) \$77,846 and \$98,438 at September 30, 2024 and December 31, 2023, respectively. Cash collateral received, including accrued interest, was (in thousands) \$29,476 and \$103,483 at September 30, 2024 and December 31, 2023, respectively.

Table 6.2 presents the impact of qualifying fair value hedging relationships on net interest income as well as the total interest income (expense) by product.

**Table 6.2 - Impact of Fair Value Hedging Relationships on Net Interest Income (in thousands)**

	<b>Three Months Ended September 30, 2024</b>		
	<b>Advances</b>	<b>Available-for-Sale Securities</b>	<b>Consolidated Bonds</b>
Total interest income (expense) recorded in the Statements of Income	\$ 1,099,084	\$ 142,007	\$ (1,304,683)
<b>Impact of Fair Value Hedging Relationships</b>			
Interest rate swaps:			
Net interest settlements	\$ 113,033	\$ 87,959	\$ (7,291)
Gain (loss) on derivatives	(620,482)	(380,738)	35,828
Gain (loss) on hedged items	620,779	384,762	(35,758)
Price alignment amount <sup>(1)</sup>	(1,912)	(8,670)	(75)
Effect on net interest income	<u>\$ 111,418</u>	<u>\$ 83,313</u>	<u>\$ (7,296)</u>
	<b>Three Months Ended September 30, 2023</b>		
	<b>Advances</b>	<b>Available-for-Sale Securities</b>	<b>Consolidated Bonds</b>
Total interest income (expense) recorded in the Statements of Income	\$ 1,057,139	\$ 139,444	\$ (1,033,895)
<b>Impact of Fair Value Hedging Relationships</b>			
Interest rate swaps:			
Net interest settlements	\$ 96,145	\$ 95,929	\$ (8,152)
Gain (loss) on derivatives	127,167	207,130	2,396
Gain (loss) on hedged items	(127,317)	(206,195)	(2,644)
Price alignment amount <sup>(1)</sup>	(7,407)	(15,842)	93
Effect on net interest income	<u>\$ 88,588</u>	<u>\$ 81,022</u>	<u>\$ (8,307)</u>
	<b>Nine Months Ended September 30, 2024</b>		
	<b>Advances</b>	<b>Available-for-Sale Securities</b>	<b>Consolidated Bonds</b>
Total interest income (expense) recorded in the Statements of Income	\$ 3,235,711	\$ 415,982	\$ (3,680,636)
<b>Impact of Fair Value Hedging Relationships</b>			
Interest rate swaps:			
Net interest settlements	\$ 326,416	\$ 272,861	\$ (24,320)
Gain (loss) on derivatives	(314,268)	(219,557)	18,528
Gain (loss) on hedged items	314,266	224,329	(18,497)
Price alignment amount <sup>(1)</sup>	(13,551)	(35,509)	32
Effect on net interest income	<u>\$ 312,863</u>	<u>\$ 242,124</u>	<u>\$ (24,257)</u>

**Nine Months Ended September 30, 2023**

	<b>Advances</b>	<b>Available-for-Sale Securities</b>	<b>Consolidated Bonds</b>
Total interest income (expense) recorded in the Statements of Income	\$ 3,393,005	\$ 375,881	\$ (2,762,029)
<b>Impact of Fair Value Hedging Relationships</b>			
Interest rate swaps:			
Net interest settlements	\$ 238,028	\$ 251,625	\$ (24,075)
Gain (loss) on derivatives	229,033	217,040	8,249
Gain (loss) on hedged items	(229,434)	(214,052)	(8,224)
Price alignment amount <sup>(1)</sup>	(16,212)	(37,411)	380
Effect on net interest income	\$ 221,415	\$ 217,202	\$ (23,670)

(1) This amount is for derivatives for which variation margin is characterized as a daily settled contract.

Table 6.3 presents the cumulative basis adjustments on hedged items designated as fair value hedges and the related amortized cost of the hedged items.

**Table 6.3 - Cumulative Basis Adjustments for Fair Value Hedges (in thousands)**

	<b>September 30, 2024</b>		
	<b>Advances</b>	<b>Available-for-Sale Securities</b>	<b>Consolidated Bonds</b>
Amortized cost of hedged asset or liability <sup>(1)</sup>	\$ 33,060,550	\$ 9,202,252	\$ 2,155,937
<b>Fair value hedging adjustments</b>			
Basis adjustments for active hedging relationships included in amortized cost	\$ 226,414	\$ (485,057)	\$ 16,263
Basis adjustments for discontinued hedging relationships included in amortized cost	367	10,284	—
Total amount of fair value hedging basis adjustments	\$ 226,781	\$ (474,773)	\$ 16,263
	<b>December 31, 2023</b>		
	<b>Advances</b>	<b>Available-for-Sale Securities</b>	<b>Consolidated Bonds</b>
Amortized cost of hedged asset or liability <sup>(1)</sup>	\$ 28,017,560	\$ 10,222,924	\$ 2,271,192
<b>Fair value hedging adjustments</b>			
Basis adjustments for active hedging relationships included in amortized cost	\$ (88,047)	\$ (775,129)	\$ (2,234)
Basis adjustments for discontinued hedging relationships included in amortized cost	546	16,064	—
Total amount of fair value hedging basis adjustments	\$ (87,501)	\$ (759,065)	\$ (2,234)

(1) Includes only the portion of amortized cost representing the hedged items in active or discontinued fair value hedging relationships. Amortized cost includes fair value hedging adjustments.

Table 6.4 presents net gains (losses) recorded in non-interest income (loss) on derivatives not designated as hedging instruments.

**Table 6.4 - Net Gains (Losses) Recorded in Non-interest Income (Loss) on Derivatives Not Designated as Hedging Instruments (in thousands)**

	<b>Three Months Ended September 30,</b>	
	<b>2024</b>	<b>2023</b>
Derivatives not designated as hedging instruments:		
Economic hedges:		
Interest rate swaps	\$ (85,878)	\$ 43,437
Interest rate swaptions	(1,253)	6,930
Net interest settlements	6,722	850
Mortgage delivery commitments	802	(1,500)
Total net gains (losses) related to derivatives not designated as hedging instruments	(79,607)	49,717
Price alignment amount <sup>(1)</sup>	(598)	(1,745)
Net gains (losses) on derivatives	<u>\$ (80,205)</u>	<u>\$ 47,972</u>
	<b>Nine Months Ended September 30,</b>	
	<b>2024</b>	<b>2023</b>
Derivatives not designated as hedging instruments:		
Economic hedges:		
Interest rate swaps	\$ (66,122)	\$ 48,421
Interest rate swaptions	(554)	1,903
Net interest settlements	19,200	(9,091)
Mortgage delivery commitments	(393)	(1,573)
Total net gains (losses) related to derivatives not designated as hedging instruments	(47,869)	39,660
Price alignment amount <sup>(1)</sup>	(3,947)	(3,967)
Net gains (losses) on derivatives	<u>\$ (51,816)</u>	<u>\$ 35,693</u>

(1) This amount is for derivatives for which variation margin is characterized as a daily settled contract.

*Credit Risk on Derivatives*

The FHLB is subject to credit risk given the risk of non-performance by counterparties to its derivative transactions and manages credit risk through credit analyses of derivative counterparties, collateral requirements and adherence to the requirements set forth in its policies, U.S. Commodity Futures Trading Commission regulations, and Finance Agency regulations.

For uncleared derivatives, the degree of credit risk depends on the extent to which master netting arrangements are included in these contracts to mitigate this risk. The FHLB requires collateral agreements on its uncleared derivatives with the collateral delivery threshold set to zero.

For cleared derivatives, the Clearinghouse is the FHLB's counterparty. The Clearinghouse notifies the clearing agent of the required initial and variation margin and the clearing agent in turn notifies the FHLB. The FHLB utilizes two Clearinghouses for all cleared derivative transactions, LCH Ltd. and CME Clearing. At both Clearinghouses, variation margin is characterized as daily settlement payments, while initial margin is considered to be collateral. The requirement that the FHLB post initial and variation margin through the clearing agent, to the Clearinghouse, exposes the FHLB to credit risk if the clearing agent or the Clearinghouse fails to meet its obligations. The use of cleared derivatives is intended to mitigate credit risk exposure because a central counterparty is substituted for individual counterparties and collateral/payments for changes in the value of cleared derivatives is posted daily through a clearing agent. On the Statements of Cash Flows, the variation margin cash payments, or daily settlement payments, are included in net change in derivative and hedging activities, as an operating activity.

For cleared derivatives, the Clearinghouse determines initial margin requirements and generally credit ratings are not factored into the initial margin. However, clearing agents may require additional initial margin to be posted based on credit considerations, including, but not limited to, credit rating downgrades. At September 30, 2024, the FHLB was not required to post additional initial margin by its clearing agents based on credit considerations.

*Offsetting of Derivative Assets and Derivative Liabilities*

The FHLB presents derivative instruments, related cash collateral received or pledged, and associated accrued interest, on a net basis by clearing agent and/or by counterparty when it has met the netting requirements.

The FHLB has analyzed the enforceability of offsetting rights incorporated in its cleared derivative transactions, and it expects that the exercise of those offsetting rights by a non-defaulting party under these transactions would be upheld under applicable law upon an event of default, including bankruptcy, insolvency, or similar proceeding involving the Clearinghouse or the FHLB's clearing agent, or both. Based on this analysis, the FHLB presents a net derivative receivable or payable for all of its transactions through a particular clearing agent with a particular Clearinghouse.

Table 6.5 presents separately the fair value of derivative instruments meeting or not meeting netting requirements, including the related collateral. Any over-collateralization under an individual clearing agent and/or counterparty level is not included in the determination of the net unsecured amount.

**Table 6.5 - Offsetting of Derivative Assets and Derivative Liabilities (in thousands)**

<b>September 30, 2024</b>							
	<b>Derivative Instruments Meeting Netting Requirements</b>			<b>Non-cash Collateral Not Offset</b>			
	<b>Gross Recognized Amount</b>	<b>Gross Amount of Netting Adjustments and Cash Collateral</b>	<b>Derivative Instruments Not Meeting Netting Requirements <sup>(1)</sup></b>	<b>Total Derivative Assets and Total Derivative Liabilities</b>	<b>Can Be Sold or Repledged</b>	<b>Net Amount <sup>(2)</sup></b>	
<b>Derivative Assets:</b>							
Uncleared	\$ 48,392	\$ (45,462)	\$ 72	\$ 3,002	\$ —	\$ 3,002	
Cleared	76,455	59,010	—	135,465	—	135,465	
Total				<u>\$ 138,467</u>		<u>\$ 138,467</u>	
<b>Derivative Liabilities:</b>							
Uncleared	\$ 32,596	\$ (31,033)	\$ 76	\$ 1,639	\$ —	\$ 1,639	
Cleared	3,789	(3,789)	—	—	—	—	
Total				<u>\$ 1,639</u>		<u>\$ 1,639</u>	
<b>December 31, 2023</b>							
	<b>Derivative Instruments Meeting Netting Requirements</b>			<b>Non-cash Collateral Not Offset</b>			
	<b>Gross Recognized Amount</b>	<b>Gross Amount of Netting Adjustments and Cash Collateral</b>	<b>Derivative Instruments Not Meeting Netting Requirements <sup>(1)</sup></b>	<b>Total Derivative Assets and Total Derivative Liabilities</b>	<b>Can Be Sold or Repledged</b>	<b>Net Amount <sup>(2)</sup></b>	
<b>Derivative Assets:</b>							
Uncleared	\$ 149,580	\$ (139,559)	\$ 1,202	\$ 11,223	\$ —	\$ 11,223	
Cleared	4,196	86,572	—	90,768	—	90,768	
Total				<u>\$ 101,991</u>		<u>\$ 101,991</u>	
<b>Derivative Liabilities:</b>							
Uncleared	\$ 42,910	\$ (42,320)	\$ 6	\$ 596	\$ —	\$ 596	
Cleared	14,857	(5,622)	—	9,235	9,235	—	
Total				<u>\$ 9,831</u>		<u>\$ 596</u>	

(1) Includes mortgage delivery commitments that are not subject to an enforceable netting agreement.

(2) Any over-collateralization at the individual clearing agent and/or counterparty level is not included in the determination of the net amount. At September 30, 2024 and December 31, 2023, the FHLB had additional net credit exposure of (in thousands) \$852,788 and \$810,559, respectively, due to instances where the FHLB's non-cash collateral to a counterparty exceeded the FHLB's net derivative position.

**Note 7 - Consolidated Obligations**

Consolidated Obligations consist of Consolidated Bonds and Discount Notes. The 11 FHLBanks have joint and several liability for the par amount of all of the Consolidated Obligations issued on their behalves. The par amount of the outstanding Consolidated Obligations for all of the FHLBanks was (in billions) \$1,172.8 and \$1,204.3 at September 30, 2024 and December 31, 2023, respectively.

**Table 7.1 - Consolidated Discount Notes Outstanding (dollars in thousands)**

	<u>Carrying Value</u>	<u>Principal Amount</u>	<u>Weighted Average Interest Rate <sup>(1)</sup></u>
September 30, 2024	\$ 16,182,559	\$ 16,286,858	4.91 %
December 31, 2023	\$ 23,690,526	\$ 23,837,675	5.22 %

(1) Represents an implied rate without consideration of concessions.

**Table 7.2 - Consolidated Bonds Outstanding by Original Contractual Maturity (dollars in thousands)**

<u>Year of Original Contractual Maturity</u>	<u>September 30, 2024</u>		<u>December 31, 2023</u>	
	<u>Amount</u>	<u>Weighted Average Interest Rate</u>	<u>Amount</u>	<u>Weighted Average Interest Rate</u>
Due in 1 year or less	\$ 67,675,230	4.76 %	\$ 59,008,905	5.30 %
Due after 1 year through 2 years	25,028,500	4.78	23,809,000	5.09
Due after 2 years through 3 years	2,676,300	3.17	2,111,000	3.49
Due after 3 years through 4 years	1,144,500	3.24	1,604,500	1.96
Due after 4 years through 5 years	1,266,000	3.63	1,536,500	3.45
Thereafter	4,574,140	3.86	3,502,140	3.42
Total principal amount	102,364,670	4.65	91,572,045	5.04
Premiums	46,059		37,559	
Discounts	(29,917)		(27,194)	
Fair value hedging adjustments	16,263		(2,234)	
Fair value option valuation adjustment and accrued interest	48,039		176,254	
Total	<u>\$ 102,445,114</u>		<u>\$ 91,756,430</u>	

**Table 7.3 - Consolidated Bonds Outstanding by Call Features (in thousands)**

	<u>September 30, 2024</u>	<u>December 31, 2023</u>
Principal Amount of Consolidated Bonds:		
Non-callable	\$ 70,760,870	\$ 63,921,045
Callable	31,603,800	27,651,000
Total principal amount	<u>\$ 102,364,670</u>	<u>\$ 91,572,045</u>

**Table 7.4 - Consolidated Bonds Outstanding by Original Contractual Maturity or Next Call Date (in thousands)**

<b>Year of Original Contractual Maturity or Next Call Date</b>	<b>September 30, 2024</b>	<b>December 31, 2023</b>
Due in 1 year or less	\$ 89,869,730	\$ 69,410,905
Due after 1 year through 2 years	5,531,800	16,402,000
Due after 2 years through 3 years	1,515,500	1,648,000
Due after 3 years through 4 years	881,500	326,500
Due after 4 years through 5 years	986,000	1,081,500
Thereafter	3,580,140	2,703,140
<b>Total principal amount</b>	<b>\$ 102,364,670</b>	<b>\$ 91,572,045</b>

**Table 7.5 - Consolidated Bonds by Interest-rate Payment Type (in thousands)**

	<b>September 30, 2024</b>	<b>December 31, 2023</b>
Principal Amount of Consolidated Bonds:		
Fixed-rate	\$ 22,435,170	\$ 33,686,045
Variable-rate	79,929,500	57,886,000
<b>Total principal amount</b>	<b>\$ 102,364,670</b>	<b>\$ 91,572,045</b>

**Note 8 - Affordable Housing Program (AHP)**

The FHLBank Act requires each FHLBank to establish an AHP. Each FHLBank provides subsidies in the form of direct grants or below-market interest rates on Advances to members who provide the funds to assist in the purchase, construction, or rehabilitation of housing for very low-, low-, and moderate-income households. Each FHLBank recognizes AHP assessment expense equal to the greater of 10 percent of its annual income subject to assessment or the prorated sum required to ensure the aggregate contribution by the FHLBanks is no less than \$100 million for each year. For purposes of the statutory AHP calculation, income subject to assessment is defined as net income before AHP assessments, plus interest expense related to mandatorily redeemable capital stock. The FHLB accrues AHP expense monthly based on its income subject to assessment. The FHLB reduces the AHP liability as members use subsidies. In addition to the required AHP assessment, the Board of Directors may elect to make voluntary contributions to the AHP, which are recorded as other non-interest expenses.

**Table 8.1 - Rollforward of the AHP Liability (in thousands)**

Balance at December 31, 2023	\$ 139,807
Assessments (current year additions)	50,588
Voluntary contribution	20,024
Subsidy uses, net of recaptured amounts	(45,840)
<b>Balance at September 30, 2024</b>	<b>\$ 164,579</b>

**Note 9 - Capital**

**Table 9.1 - Capital Requirements (dollars in thousands)**

	<b>September 30, 2024</b>		<b>December 31, 2023</b>	
	<b>Minimum Requirement</b>	<b>Actual</b>	<b>Minimum Requirement</b>	<b>Actual</b>
Risk-based capital	\$ 1,418,124	\$ 6,687,145	\$ 1,373,464	\$ 6,521,334
Capital-to-assets ratio (regulatory)	4.00 %	5.23 %	4.00 %	5.26 %
Regulatory capital	\$ 5,113,096	\$ 6,687,145	\$ 4,959,830	\$ 6,521,334
Leverage capital-to-assets ratio (regulatory)	5.00 %	7.85 %	5.00 %	7.89 %
Leverage capital	\$ 6,391,370	\$ 10,030,718	\$ 6,199,787	\$ 9,782,001

*Restricted Retained Earnings.* At September 30, 2024 and December 31, 2023 the FHLB had (in thousands) \$784,516 and \$693,682, respectively, in restricted retained earnings. These restricted retained earnings are not available to pay dividends but are available to absorb unexpected losses, if any, that an FHLBank may experience.

**Table 9.2 - Rollforward of Mandatorily Redeemable Capital Stock (in thousands)**

Balance, December 31, 2023	\$ 17,314
Capital stock subject to mandatory redemption reclassified from equity	7,563
Repurchase/redemption of mandatorily redeemable capital stock	(9,601)
Balance, September 30, 2024	<u>\$ 15,276</u>

**Table 9.3 - Mandatorily Redeemable Capital Stock by Contractual Year of Redemption (in thousands)**

<u>Contractual Year of Redemption</u>	<u>September 30, 2024</u>	<u>December 31, 2023</u>
Year 1	\$ 8	\$ 9
Year 2	43	—
Year 3	6,954	4,915
Year 4	1,480	2,963
Year 5	831	2,865
Past contractual redemption date due to remaining activity <sup>(1)</sup>	5,960	6,562
Total	<u>\$ 15,276</u>	<u>\$ 17,314</u>

(1) Represents mandatorily redeemable capital stock that is past the end of the contractual redemption period because there is activity outstanding to which the mandatorily redeemable capital stock relates.

**Note 10 - Accumulated Other Comprehensive Income (Loss)**

The following tables summarize the changes in accumulated other comprehensive income (loss) for the three and nine months ended September 30, 2024 and 2023.

**Table 10.1 - Accumulated Other Comprehensive Income (Loss) (in thousands)**

	Net unrealized gains (losses) on available-for-sale securities	Pension and postretirement benefits	Total accumulated other comprehensive income (loss)
<b>BALANCE, JUNE 30, 2023</b>	\$ (33,364)	\$ (810)	\$ (34,174)
Other comprehensive income before reclassification:			
Net unrealized gains (losses)	(16,122)	—	(16,122)
Reclassifications from other comprehensive income (loss) to net income:			
Amortization - pension and postretirement benefits <sup>(1)</sup>	—	(98)	(98)
Net current period other comprehensive income (loss)	(16,122)	(98)	(16,220)
<b>BALANCE, SEPTEMBER 30, 2023</b>	<u>\$ (49,486)</u>	<u>\$ (908)</u>	<u>\$ (50,394)</u>
<hr/>			
<b>BALANCE, JUNE 30, 2024</b>	\$ (23,717)	\$ (1,422)	\$ (25,139)
Other comprehensive income before reclassification:			
Net unrealized gains (losses)	(25,006)	—	(25,006)
Reclassifications from other comprehensive income (loss) to net income:			
Net realized (gains) losses from sale of available-for- sale securities	157	—	157
Amortization - pension and postretirement benefits <sup>(1)</sup>	—	(91)	(91)
Net current period other comprehensive income (loss)	(24,849)	(91)	(24,940)
<b>BALANCE, SEPTEMBER 30, 2024</b>	<u>\$ (48,566)</u>	<u>\$ (1,513)</u>	<u>\$ (50,079)</u>

	Net unrealized gains (losses) on available-for-sale securities	Pension and postretirement benefits	Total accumulated other comprehensive income (loss)
<b>BALANCE, DECEMBER 31, 2022</b>	\$ (48,726)	\$ (614)	\$ (49,340)
Other comprehensive income before reclassification:			
Net unrealized gains (losses)	(760)	—	(760)
Reclassifications from other comprehensive income (loss) to net income:			
Amortization - pension and postretirement benefits <sup>(1)</sup>	—	(294)	(294)
Net current period other comprehensive income (loss)	(760)	(294)	(1,054)
<b>BALANCE, SEPTEMBER 30, 2023</b>	<u>\$ (49,486)</u>	<u>\$ (908)</u>	<u>\$ (50,394)</u>
<hr/>			
<b>BALANCE, DECEMBER 31, 2023</b>	\$ (75,997)	\$ (1,340)	\$ (77,337)
Other comprehensive income before reclassification:			
Net unrealized gains (losses)	28,699	—	28,699
Reclassifications from other comprehensive income (loss) to net income:			
Net realized (gains) losses from sale of available-for- sale securities	(1,268)	—	(1,268)
Amortization - pension and postretirement benefits <sup>(1)</sup>	—	(173)	(173)
Net current period other comprehensive income (loss)	27,431	(173)	27,258
<b>BALANCE, SEPTEMBER 30, 2024</b>	<u>\$ (48,566)</u>	<u>\$ (1,513)</u>	<u>\$ (50,079)</u>

(1) Included in Non-Interest Expense - Other in the Statements of Income.

**Note 11 - Segment Information**

The FHLB has identified two primary operating segments based on its method of internal reporting: Traditional Member Finance and the MPP. These segments reflect the FHLB's two primary Mission Asset Activities and the manner in which they are managed from the perspective of development, resource allocation, product delivery, pricing, credit risk and operational administration. The segments identify the principal ways the FHLB provides services to member stockholders.

**Table 11.1 - Financial Performance by Operating Segment (in thousands)**

	<b>Three Months Ended September 30,</b>		
	<b>Traditional Member Finance</b>	<b>MPP</b>	<b>Total</b>
<b>2024</b>			
Net interest income (loss)	\$ 184,516	\$ 24,209	\$ 208,725
Non-interest income (loss)	9,327	(452)	8,875
Non-interest expense	31,586	3,670	35,256
Income (loss) before assessments	162,257	20,087	182,344
Affordable Housing Program assessments	16,261	2,009	18,270
Net income (loss)	<u>\$ 145,996</u>	<u>\$ 18,078</u>	<u>\$ 164,074</u>
<b>2023</b>			
Net interest income (loss)	\$ 186,434	\$ 35,714	\$ 222,148
Non-interest income (loss)	(11,162)	5,431	(5,731)
Non-interest expense	25,063	2,675	27,738
Income (loss) before assessments	150,209	38,470	188,679
Affordable Housing Program assessments	15,132	3,847	18,979
Net income (loss)	<u>\$ 135,077</u>	<u>\$ 34,623</u>	<u>\$ 169,700</u>
	<b>Nine Months Ended September 30,</b>		
	<b>Traditional Member Finance</b>	<b>MPP</b>	<b>Total</b>
<b>2024</b>			
Net interest income (loss)	\$ 538,669	\$ 71,690	\$ 610,359
Non-interest income (loss)	21,991	(948)	21,043
Non-interest expense	113,900	12,741	126,641
Income (loss) before assessments	446,760	58,001	504,761
Affordable Housing Program assessments	44,788	5,800	50,588
Net income (loss)	<u>\$ 401,972</u>	<u>\$ 52,201</u>	<u>\$ 454,173</u>
<b>2023</b>			
Net interest income (loss)	\$ 544,411	\$ 104,578	\$ 648,989
Non-interest income (loss)	20,479	331	20,810
Non-interest expense	87,582	10,111	97,693
Income (loss) before assessments	477,308	94,798	572,106
Affordable Housing Program assessments	47,965	9,480	57,445
Net income (loss)	<u>\$ 429,343</u>	<u>\$ 85,318</u>	<u>\$ 514,661</u>

**Table 11.2 - Asset Balances by Operating Segment (in thousands)**

	<b>Assets</b>		
	<b>Traditional Member Finance</b>	<b>MPP</b>	<b>Total</b>
September 30, 2024	\$ 120,206,377	\$ 7,621,026	\$ 127,827,403
December 31, 2023	116,828,245	7,167,493	123,995,738

## Note 12 - Fair Value Disclosures

The fair value amounts recorded on the Statements of Condition and presented in the related note disclosures have been determined by the FHLB using available market information and the FHLB's best judgment of appropriate valuation methods. GAAP defines fair value as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date (i.e., an exit price). The fair values reflect the FHLB's judgment of how a market participant would estimate the fair values.

*Fair Value Hierarchy.* GAAP establishes a fair value hierarchy and requires an entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value. The inputs are evaluated and an overall level for the measurement is determined. This overall level is an indication of how market observable the fair value measurement is.

The fair value hierarchy prioritizes the inputs used to measure fair value into three broad levels:

**Level 1 Inputs** - Quoted prices (unadjusted) for identical assets or liabilities in an active market that the reporting entity can access on the measurement date. An active market for the asset or liability is a market in which the transactions for the asset or liability occur with sufficient frequency and volume to provide pricing information on an ongoing basis.

**Level 2 Inputs** - Inputs other than quoted prices within Level 1 that are observable inputs for the asset or liability, either directly or indirectly. If the asset or liability has a specified (contractual) term, a Level 2 input must be observable for substantially the full term of the asset or liability. Level 2 inputs include the following: (1) quoted prices for similar assets or liabilities in active markets; (2) quoted prices for identical or similar assets or liabilities in markets that are not active; (3) inputs other than quoted prices that are observable for the asset or liability (e.g., interest rates and yield curves that are observable at commonly quoted intervals, and implied volatilities); and (4) inputs that are derived principally from or corroborated by observable market data by correlation or other means.

**Level 3 Inputs** - Unobservable inputs for the asset or liability, which are supported by limited to no market activity and reflect the FHLB's own assumptions.

The FHLB reviews the fair value hierarchy classifications on a quarterly basis. Changes in the observability of the valuation inputs may result in a reclassification of certain financial assets or liabilities. The FHLB did not have any transfers of assets or liabilities into or out of Level 3 of the fair value hierarchy during the nine months ended September 30, 2024 or 2023.

Table 12.1 presents the carrying value, fair value, and fair value hierarchy of financial assets and liabilities of the FHLB. The FHLB records trading securities, available-for-sale securities, derivative assets, derivative liabilities, certain Advances and certain Consolidated Obligations at fair value on a recurring basis, and on occasion, certain mortgage loans held for portfolio on a nonrecurring basis. The FHLB records all other financial assets and liabilities at amortized cost. Refer to Table 12.2 for further details about the financial assets and liabilities held at fair value on either a recurring or nonrecurring basis.

**Table 12.1 - Fair Value Summary (in thousands)**

<b>Financial Instruments</b>	<b>September 30, 2024</b>					
	<b>Carrying Value <sup>(1)</sup></b>	<b>Fair Value</b>				<b>Netting Adjustments and Cash Collateral <sup>(2)</sup></b>
		<b>Total</b>	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>	
<b>Assets:</b>						
Cash and due from banks	\$ 23,110	\$ 23,110	\$ 23,110	\$ —	\$ —	\$ —
Interest-bearing deposits	2,380,216	2,380,216	—	2,380,216	—	—
Securities purchased under agreements to resell	1,760,330	1,760,332	—	1,760,332	—	—
Federal funds sold	7,800,000	7,800,000	—	7,800,000	—	—
Trading securities	2,818,916	2,818,916	—	2,818,916	—	—
Available-for-sale securities	9,181,986	9,181,986	—	9,181,986	—	—
Held-to-maturity securities	15,808,838	15,646,859	—	15,646,859	—	—
Advances <sup>(3)</sup>	80,178,573	80,302,978	—	80,302,978	—	—
Mortgage loans held for portfolio	7,188,246	6,619,963	—	6,611,387	8,576	—
Accrued interest receivable	517,137	517,137	—	517,137	—	—
Derivative assets	138,467	138,467	—	124,919	—	13,548
<b>Liabilities:</b>						
Deposits	1,184,041	1,184,385	—	1,184,385	—	—
<b>Consolidated Obligations:</b>						
Discount Notes <sup>(4)</sup>	16,182,559	16,185,225	—	16,185,225	—	—
Bonds <sup>(5)</sup>	102,445,114	102,126,865	—	102,126,865	—	—
Mandatorily redeemable capital stock	15,276	15,276	15,276	—	—	—
Accrued interest payable	639,520	639,520	—	639,520	—	—
Derivative liabilities	1,639	1,639	—	36,461	—	(34,822)

(1) For certain financial instruments, the amounts represent net carrying value, which include an allowance for credit losses.

(2) Amounts represent the application of the netting requirements that allow the FHLB to settle positive and negative positions and also cash collateral and related accrued interest held or placed by the FHLB with the same counterparty.

(3) Includes (in thousands) \$276,966 of Advances recorded under the fair value option at September 30, 2024.

(4) Includes (in thousands) \$4,342,390 of Consolidated Obligation Discount Notes recorded under the fair value option at September 30, 2024.

(5) Includes (in thousands) \$8,693,539 of Consolidated Obligation Bonds recorded under the fair value option at September 30, 2024.

Financial Instruments	December 31, 2023					
	Carrying Value <sup>(1)</sup>	Fair Value				Netting Adjustments and Cash Collateral <sup>(2)</sup>
		Total	Level 1	Level 2	Level 3	
<b>Assets:</b>						
Cash and due from banks	\$ 20,824	\$ 20,824	\$ 20,824	\$ —	\$ —	\$ —
Interest-bearing deposits	1,875,037	1,875,037	—	1,875,037	—	—
Securities purchased under agreements to resell	5,242,480	5,242,482	—	5,242,482	—	—
Federal funds sold	6,774,000	6,774,000	—	6,774,000	—	—
Trading securities	1,745,742	1,745,742	—	1,745,742	—	—
Available-for-sale securities	10,171,588	10,171,588	—	10,171,588	—	—
Held-to-maturity securities	16,832,133	16,576,613	—	16,576,613	—	—
Advances <sup>(3)</sup>	73,553,162	73,499,705	—	73,499,705	—	—
Mortgage loans held for portfolio	7,108,334	6,369,152	—	6,359,230	9,922	—
Accrued interest receivable	535,564	535,564	—	535,564	—	—
Derivative assets	101,991	101,991	—	154,978	—	(52,987)
<b>Liabilities:</b>						
Deposits	1,113,704	1,109,999	—	1,109,999	—	—
Consolidated Obligations:						
Discount Notes <sup>(4)</sup>	23,690,526	23,689,599	—	23,689,599	—	—
Bonds <sup>(5)</sup>	91,756,430	90,983,204	—	90,983,204	—	—
Mandatorily redeemable capital stock	17,314	17,314	17,314	—	—	—
Accrued interest payable	422,886	422,886	—	422,886	—	—
Derivative liabilities	9,831	9,831	—	57,773	—	(47,942)

- (1) For certain financial instruments, the amounts represent net carrying value, which include an allowance for credit losses.
- (2) Amounts represent the application of the netting requirements that allow the FHLB to settle positive and negative positions and also cash collateral and related accrued interest held or placed by the FHLB with the same counterparty.
- (3) Includes (in thousands) \$214,035 of Advances recorded under the fair value option at December 31, 2023.
- (4) Includes (in thousands) \$14,085,003 of Consolidated Obligation Discount Notes recorded under the fair value option at December 31, 2023.
- (5) Includes (in thousands) \$20,657,254 of Consolidated Obligation Bonds recorded under the fair value option at December 31, 2023.

*Summary of Valuation Methodologies and Primary Inputs.*

The valuation methodologies and primary inputs used to develop the measurement of fair value for assets and liabilities that are measured at fair value on a recurring or nonrecurring basis in the Statements of Condition are disclosed in Note 15 - Fair Value Disclosures in the FHLB's 2023 Annual Report on Form 10-K. There have been no significant changes in the valuation methodologies during the nine months ended September 30, 2024.

*Fair Value Measurements.*

Table 12.2 presents the fair value of financial assets and liabilities that are recorded on a recurring basis at September 30, 2024 and December 31, 2023, by level within the fair value hierarchy.

**Table 12.2 - Fair Value Measurements (in thousands)**

	Fair Value Measurements at September 30, 2024				
	Total	Level 1	Level 2	Level 3	Netting Adjustments and Cash Collateral <sup>(1)</sup>
<b>Recurring fair value measurements - Assets</b>					
Trading securities:					
U.S. Treasury obligations	\$ 1,303,136	\$ —	\$ 1,303,136	\$ —	\$ —
GSE obligations	1,515,772	—	1,515,772	—	—
U.S. obligation single-family MBS	8	—	8	—	—
Total trading securities	2,818,916	—	2,818,916	—	—
Available-for-sale securities:					
U.S. Treasury obligations	5,600,009	—	5,600,009	—	—
GSE obligations	122,061	—	122,061	—	—
GSE multi-family MBS	3,459,916	—	3,459,916	—	—
Total available-for-sale securities	9,181,986	—	9,181,986	—	—
Advances	276,966	—	276,966	—	—
Derivative assets:					
Interest rate related	138,395	—	124,847	—	13,548
Mortgage delivery commitments	72	—	72	—	—
Total derivative assets	138,467	—	124,919	—	13,548
Total assets at fair value	<u>\$ 12,416,335</u>	<u>\$ —</u>	<u>\$ 12,402,787</u>	<u>\$ —</u>	<u>\$ 13,548</u>
<b>Recurring fair value measurements - Liabilities</b>					
Consolidated Obligations:					
Discount Notes	\$ 4,342,390	\$ —	\$ 4,342,390	\$ —	\$ —
Bonds	8,693,539	—	8,693,539	—	—
Total Consolidated Obligations	13,035,929	—	13,035,929	—	—
Derivative liabilities:					
Interest rate related	1,563	—	36,385	—	(34,822)
Mortgage delivery commitments	76	—	76	—	—
Total derivative liabilities	1,639	—	36,461	—	(34,822)
Total liabilities at fair value	<u>\$ 13,037,568</u>	<u>\$ —</u>	<u>\$ 13,072,390</u>	<u>\$ —</u>	<u>\$ (34,822)</u>

(1) Amounts represent the application of the netting requirements that allow the FHLB to settle positive and negative positions and also cash collateral and related accrued interest held or placed by the FHLB with the same counterparty.

## Fair Value Measurements at December 31, 2023

	Total	Level 1	Level 2	Level 3	Netting Adjustments and Cash Collateral <sup>(1)</sup>
<b>Recurring fair value measurements - Assets</b>					
Trading securities:					
U.S. Treasury obligations	\$ 248,688	\$ —	\$ 248,688	\$ —	\$ —
GSE obligations	1,497,009	—	1,497,009	—	—
U.S. obligation single-family MBS	45	—	45	—	—
Total trading securities	1,745,742	—	1,745,742	—	—
Available-for-sale securities:					
U.S. Treasury obligations	7,611,819	—	7,611,819	—	—
GSE obligations	119,912	—	119,912	—	—
GSE multi-family MBS	2,439,857	—	2,439,857	—	—
Total available-for-sale securities	10,171,588	—	10,171,588	—	—
Advances	214,035	—	214,035	—	—
Derivative assets:					
Interest rate related	100,789	—	153,776	—	(52,987)
Mortgage delivery commitments	1,202	—	1,202	—	—
Total derivative assets	101,991	—	154,978	—	(52,987)
Total assets at fair value	\$ 12,233,356	\$ —	\$ 12,286,343	\$ —	\$ (52,987)
<b>Recurring fair value measurements - Liabilities</b>					
Consolidated Obligations:					
Discount Notes	\$ 14,085,003	\$ —	\$ 14,085,003	\$ —	\$ —
Bonds	20,657,254	—	20,657,254	—	—
Total Consolidated Obligations	34,742,257	—	34,742,257	—	—
Derivative liabilities:					
Interest rate related	9,825	—	57,767	—	(47,942)
Mortgage delivery commitments	6	—	6	—	—
Total derivative liabilities	9,831	—	57,773	—	(47,942)
Total liabilities at fair value	\$ 34,752,088	\$ —	\$ 34,800,030	\$ —	\$ (47,942)

(1) Amounts represent the application of the netting requirements that allow the FHLB to settle positive and negative positions and also cash collateral and related accrued interest held or placed by the FHLB with the same counterparty.

*Fair Value Option.* The fair value option provides an irrevocable option to elect fair value as an alternative measurement for selected financial assets, financial liabilities, unrecognized firm commitments, and written loan commitments not previously carried at fair value. It requires a company to display the fair value of those assets and liabilities for which it has chosen to use fair value on the face of the Statements of Condition. Fair value is used for both the initial and subsequent measurement of the designated assets, liabilities and commitments, with the changes in fair value recognized in net income. If elected, interest income and interest expense on Advances and Consolidated Obligations carried at fair value are recognized based solely on the contractual amount of interest due or unpaid. Any transaction fees or costs are immediately recognized into other non-interest income or other non-interest expense.

The FHLB has elected the fair value option for certain financial instruments that either do not qualify for hedge accounting or may be at risk for not meeting hedge effectiveness requirements. These fair value elections were made primarily in an effort to mitigate the potential income statement volatility that can arise from economic hedging relationships in which the carrying value of the hedged item is not adjusted for changes in fair value.

Table 12.3 presents net gains (losses) recognized in earnings related to financial assets and liabilities in which the fair value option was elected during the three and nine months ended September 30, 2024 and 2023.

**Table 12.3 – Fair Value Option - Financial Assets and Liabilities (in thousands)**

Net Gains (Losses) from Changes in Fair Value Recognized in Earnings	Three Months Ended September 30,		Nine Months Ended September 30,	
	2024	2023	2024	2023
Advances	\$ 7,079	\$ (1,637)	\$ 2,254	\$ (3,172)
Consolidated Discount Notes	(4,994)	(5,231)	(29)	(5,565)
Consolidated Bonds	(17,595)	(17,235)	(25,590)	10,257
Total net gains (losses)	<u>\$ (15,510)</u>	<u>\$ (24,103)</u>	<u>\$ (23,365)</u>	<u>\$ 1,520</u>

For instruments recorded under the fair value option, the related contractual interest income, contractual interest expense and the discount amortization on Discount Notes are recorded as part of net interest income on the Statements of Income. The remaining changes in fair value for instruments in which the fair value option has been elected are recorded as “Net gains (losses) on financial instruments held under fair value option” in the Statements of Income, except for changes in fair value related to instrument specific credit risk, which are recorded in accumulated other comprehensive income (loss) in the Statements of Condition. The FHLB has determined that none of the remaining changes in fair value were related to instrument-specific credit risk for the nine months ended September 30, 2024 or 2023. In determining that there has been no change in instrument-specific credit risk period to period, the FHLB primarily considered the following factors:

- The FHLB is a federally chartered GSE, and as a result of this status, the FHLB’s Consolidated Obligations have historically received the same credit ratings as the government bond credit rating of the United States, even though they are not obligations of the United States and are not guaranteed by the United States.
- The FHLB is jointly and severally liable with the other 10 FHLBanks for the payment of principal and interest on all Consolidated Obligations of each of the other FHLBanks.

The following table reflects the difference between the aggregate unpaid principal balance outstanding and the aggregate fair value for Advances and Consolidated Obligations for which the fair value option has been elected.

**Table 12.4 – Aggregate Unpaid Balance and Aggregate Fair Value (in thousands)**

	September 30, 2024			December 31, 2023		
	Aggregate Unpaid Principal Balance	Aggregate Fair Value	Aggregate Fair Value Over/ (Under) Aggregate Unpaid Principal Balance	Aggregate Unpaid Principal Balance	Aggregate Fair Value	Aggregate Fair Value Over/ (Under) Aggregate Unpaid Principal Balance
Advances	\$ 270,091	\$ 276,966	\$ 6,875	\$ 209,620	\$ 214,035	\$ 4,415
Consolidated Discount Notes	4,387,665	4,342,390	(45,275)	14,193,486	14,085,003	(108,483)
Consolidated Bonds	8,645,500	8,693,539	48,039	20,481,000	20,657,254	176,254

**Note 13- Commitments and Contingencies**

*Off-Balance Sheet Commitments.* Table 13.1 represents off-balance sheet commitments at September 30, 2024 and December 31, 2023. The FHLB has deemed it unnecessary to record any liabilities for credit losses on these commitments at September 30, 2024 and December 31, 2023, based on its credit extension and collateral policies.

**Table 13.1 - Off-Balance Sheet Commitments (in thousands)**

<b>Notional Amount</b>	<b>September 30, 2024</b>			<b>December 31, 2023</b>		
	<b>Expire within one year</b>	<b>Expire after one year</b>	<b>Total</b>	<b>Expire within one year</b>	<b>Expire after one year</b>	<b>Total</b>
Letters of Credit	\$ 47,195,815	\$ 547,706	\$47,743,521	\$ 46,707,728	\$ 389,930	\$47,097,658
Commitments to purchase mortgage loans	37,355	—	37,355	100,924	—	100,924
Unsettled Consolidated Discount Notes, principal amount <sup>(1)</sup>	4,900	—	4,900	—	—	—

(1) Expiration is based on settlement period rather than underlying contractual maturity of Consolidated Obligations.

The carrying value of guarantees related to Letters of Credit are recorded in other liabilities and were (in thousands) \$11,878 and \$11,775 at September 30, 2024 and December 31, 2023.

*Legal Proceedings.* From time to time, the FHLB is subject to legal proceedings arising in the normal course of business. The FHLB would record an accrual for a loss contingency when it is probable that a loss has been incurred and the amount could be reasonably estimated. After consultation with legal counsel, management does not anticipate that the ultimate liability and the range of reasonably possible losses, if any, arising out of any matters will have a material effect on the FHLB's financial condition or results of operations.

**Note 14 - Transactions with Other FHLBanks**

The FHLB notes transactions with other FHLBanks on the face of its financial statements. Occasionally, the FHLB loans short-term funds to and borrows short-term funds from other FHLBanks. These loans and borrowings are transacted at current market rates when traded. There were no such loans or borrowings outstanding at September 30, 2024 or December 31, 2023. The following table details the average daily balance of lending and borrowing between the FHLB and other FHLBanks for the nine months ended September 30, 2024 and 2023.

**Table 14.1 - Lending and Borrowing Between the FHLB and Other FHLBanks (in thousands)**

	<b>Average Daily Balances for the Nine Months Ended September 30,</b>	
	<b>2024</b>	<b>2023</b>
Loans to other FHLBanks	\$ 5,493	\$ 29,121
Borrowings from other FHLBanks	18	37

In addition, from time to time, one FHLBank may transfer to another FHLBank the Consolidated Obligations (at current market rates on the day when the transfer is traded) for which the transferring FHLBank was originally the primary obligor but upon transfer the assuming FHLBank becomes the primary obligor. There were no Consolidated Obligations transferred to the FHLB during the nine months ended September 30, 2024. During the nine months ended September 30, 2023, the par amount of the liability on Consolidated Obligations transferred to the FHLB totaled (in thousands) \$250,000. During the nine months ended September 30, 2024 the FHLB transferred Consolidated Obligations with a par amount of (in thousands) \$1,000 to another FHLBank. The gain on this transfer during the nine months ended September 30, 2024 was not material. There were no Consolidated Obligations transferred to another FHLBank during the nine months ended September 30, 2023.

### **Note 15 - Transactions with Stockholders**

As a cooperative, the FHLB's capital stock is owned by its members, by former members that retain the stock as provided in the FHLB's Capital Plan and by nonmember institutions that have acquired members and must retain the stock to support Advances or other capital-requiring activities with the FHLB. All Advances were issued to members and all mortgage loans held for portfolio were purchased from members during the nine months ended September 30, 2024 and 2023. The FHLB also maintains demand deposit accounts for members, primarily to facilitate settlement activities that are directly related to Advances and mortgage loan purchases. Additionally, the FHLB may enter into interest rate swaps with its stockholders. The FHLB may not invest in any equity securities issued by its stockholders. At September 30, 2024 and December 31, 2023, the FHLB did not own any MBS securitized by, or other direct long-term investments issued by its stockholders.

For financial statement purposes, the FHLB defines related parties as those members with more than 10 percent of the voting interests of the FHLB capital stock outstanding. Given statutory limitations, no member owned more than 10 percent of the voting interests of the FHLB at September 30, 2024 or December 31, 2023. Specifically, federal statute prescribes the voting rights of members in the election of both Member and Independent directors. For Member directorships, the Finance Agency designates the number of Member directorships in a given year and an eligible voting member may vote only for candidates seeking election in its respective state. For Independent directors, the FHLB's Board of Directors nominates candidates to be placed on the ballot in an at-large election. For both Member and Independent director elections, a member is entitled to vote one share of required capital stock, subject to a statutory limitation, for each applicable directorship. Under this limitation, the total number of votes that a member may cast is limited to the average number of shares of the FHLB's capital stock that were required to be held by all members in that state as of the record date for voting. Nonmember stockholders are not eligible to vote in director elections.

All transactions with stockholders are entered into in the ordinary course of business. Finance Agency regulations require the FHLB to offer the same pricing for Advances and other services to all members regardless of asset or transaction size, charter type, or geographic location. However, the FHLB may, in pricing its Advances, distinguish among members based upon its assessment of the credit and other risks to the FHLB of lending to any particular member or upon other reasonable criteria that may be applied equally to all members. The FHLB's policies and procedures require that such standards and criteria be applied consistently and without discrimination to all members applying for Advances and other services.

*Transactions with Directors' Financial Institutions.* In the ordinary course of its business, the FHLB provides products and services to members whose officers or directors serve as directors of the FHLB (Directors' Financial Institutions). Finance Agency regulations require that transactions with Directors' Financial Institutions be made on the same terms as those with any other member. The following table reflects balances with Directors' Financial Institutions for the items indicated below. The FHLB had no MBS or derivatives transactions with Directors' Financial Institutions at September 30, 2024 or December 31, 2023.

**Table 15.1 - Transactions with Directors' Financial Institutions (dollars in millions)**

	September 30, 2024		December 31, 2023	
	Balance	% of Total <sup>(1)</sup>	Balance	% of Total <sup>(1)</sup>
Advances	\$ 7,341	9.2 %	\$ 7,309	9.9 %
MPP	90	1.3	47	0.7
Regulatory capital stock	484	9.9	431	8.9

(1) Percentage of total principal (Advances), unpaid principal balance (MPP), and regulatory capital stock.

*Concentrations.* The following table shows regulatory capital stock balances, outstanding Advance principal balances, and unpaid principal balances of mortgage loans held for portfolio of stockholders holding five percent or more of regulatory capital stock and includes any known affiliates that are members of the FHLB.

**Table 15.2 - Stockholders Holding Five Percent or more of Regulatory Capital Stock (dollars in millions)**

<u>September 30, 2024</u>	Regulatory Capital Stock		Advance Principal	MPP Unpaid Principal Balance
	Balance	% of Total		
U.S. Bank, N.A.	\$ 906	19 %	\$ 19,500	\$ 6
JPMorgan Chase Bank, N.A.	674	14	14,000	—
Keybank, N.A.	342	7	4,832	—
Fifth Third Bank	275	6	4,001	42

  

<u>December 31, 2023</u>	Regulatory Capital Stock		Advance Principal	MPP Unpaid Principal Balance
	Balance	% of Total		
U.S. Bank, N.A.	\$ 858	18 %	\$ 10,000	\$ 7
JPMorgan Chase Bank, N.A.	673	14	14,000	—
Keybank, N.A.	526	11	9,836	—
Third Federal Savings & Loan Association	255	5	5,008	23

*Nonmember Housing Associates.* The FHLB has relationships with three nonmember housing associates, the Kentucky Housing Corporation, the Ohio Housing Finance Agency and the Tennessee Housing Development Agency. The FHLB had no investments in or borrowings to any of these nonmember housing associates at September 30, 2024 or December 31, 2023.

## **Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations.**

This report contains forward-looking statements that describe the objectives, expectations, estimates, and assessments of the Federal Home Loan Bank of Cincinnati (the FHLB). These statements use words such as “anticipates,” “expects,” “believes,” “could,” “estimates,” “may,” and “should.” By their nature, forward-looking statements relate to matters involving risks or uncertainties, including the risk factors set forth in Part I, Item 1A. "Risk Factors" in our 2023 Annual Report on Form 10-K, some of which we may not be able to know, control, or completely manage. Actual future results could differ materially from those expressed or implied in forward-looking statements or could affect the extent to which we are able to realize an objective, expectation, estimate, or assessment. These risks and uncertainties include, among others, the following:

- the effects of economic, financial, credit, market, and member conditions on our financial condition and results of operations, including changes in economic growth, general liquidity conditions and liquidity within the banking sector, inflation and deflation, interest rates, interest rate spreads, interest rate volatility, mortgage originations, prepayment activity, housing prices, asset delinquencies, and members' mergers and consolidations, deposit flows, liquidity needs, and loan demand;
- national or world events, acts of war, civil unrest, terrorism, natural disasters, climate change, pandemics, or other unanticipated or catastrophic events;

- political events, including legislative, regulatory, judicial or other developments that affect us, our members, counterparties, or investors in the Federal Home Loan Bank System's (FHLBank System or System) unsecured debt securities, which are called Consolidated Obligations (or Obligations), such as any government-sponsored enterprise (GSE) reforms, any changes resulting from the Federal Housing Finance Agency's (Finance Agency) review and analysis of the FHLBank System, including recommendations published in its "FHLBank System at 100: Focusing on the Future" report, changes in the Federal Home Loan Bank Act of 1932, as amended (FHLBank Act), changes in applicable sections of the Federal Housing Enterprises Financial Safety and Soundness Act of 1992, or changes in other statutes or regulations applicable to the Federal Home Loan Banks (FHLBanks);
- competitive forces, including those related to other sources of funding available to members, to purchases of mortgage loans, and to our issuance of Consolidated Obligations;
- the financial results and actions of other FHLBanks that could affect our ability, in relation to the FHLBank System's joint and several liability for Consolidated Obligations, to access the capital markets on acceptable terms or preserve our profitability, or could alter the regulations and legislation to which we are subject;
- changes in the credit ratings or outlook assigned to FHLBank System Obligations or the FHLB;
- changes in investor demand for Obligations;
- the volatility of market prices, interest rates, credit quality, and other indices that could affect the value of investments and collateral we hold as security for member obligations and/or for counterparty obligations;
- the ability to attract and retain skilled management and other key employees;
- the ability to develop, secure and support technology and information systems that help effectively manage the risks we face (including cybersecurity risks);
- the risk of loss arising from failures or interruptions in our ongoing business operations, internal controls, information systems or other operating technologies;
- the ability to successfully manage new products and services; and
- the risk of loss arising from litigation filed against us or one or more other FHLBanks.

We do not undertake any obligation to update any forward-looking statements made in this report.

## **EXECUTIVE OVERVIEW**

During the first nine months of 2024, we delivered on our dual mission of providing access to ongoing liquidity funding to member financial institutions and expanding support for affordable housing and community investment. We continue to monitor the changing economic landscape and are committed to assisting members in meeting their funding needs.

We maintained strong profitability, which enabled us to bolster capital adequacy by increasing retained earnings, to pay a competitive dividend rate to stockholders, and to make meaningful contributions to affordable housing. We exceeded all minimum regulatory capital and liquidity requirements, and we were able to fund operations through the issuance of Consolidated Obligations at acceptable interest costs. Additionally, overall residual credit risk exposure from our Credit Services, mortgage loan portfolio, investments, and derivative transactions has remained de minimis. Likewise, our market risk measures continue to be within our risk appetite.

### **Affordable Housing and Community Investment**

Overall, we contributed \$89 million to support affordable housing and community investment needs in the first nine months of 2024, of which \$51 million was allocated to the required Affordable Housing Program (AHP). We recognize that funding in addition to the required 10 percent statutory AHP assessments is beneficial to affordable housing and community investment and have voluntarily committed to increase our support in 2024 by at least 50 percent above the statutory AHP level. We estimate that the total targeted voluntary housing contribution for 2024 will be \$42 million, of which \$38 million has been recognized in non-interest expense on our Statements of Income in the first nine months of 2024. These funds are in addition to the required AHP contributions. These funds were allocated as follows:

- The Carol M. Peterson (CMP) Housing Fund was allocated over \$15 million. This program provides grants to cover accessibility and emergency repairs for special needs and elderly homeowners within the Fifth District.
- The Welcome Home program was funded through the required AHP allocation plus an additional \$16 million voluntary contribution in order to help fulfill a record number of requests. This program assists homebuyers with down payments and closing costs.
- The Rise Up program received \$2 million. This program offers grants of \$25,000 for down payment, closing cost, and principal reduction assistance for first-generation homebuyers who are looking to purchase their first home in Franklin County, Ohio.
- The Disaster Reconstruction Program disbursed nearly \$1 million for the replacement or repair of homes damaged or destroyed by natural disasters within the Fifth District.
- The AHP received a voluntary make whole-contribution of \$4 million to fully restore the 2024 required AHP contribution due to the effects of voluntary housing contributions, which ultimately reduced reported income before assessments.

### **Mission Assets and Activities**

Primary Mission Assets (i.e., principal balances of Advances and mortgage loans held for portfolio) and Supplemental Mission Activities (i.e., Letters of Credit, Mandatory Delivery Contracts and standby bond purchase agreements) are the principal business activities by which we fulfill our mission with direct connections to members and what we refer to as Mission Assets and Activities. We regularly monitor our level of Mission Assets and Activities. One measure we use to assess mission achievement is our Primary Mission Asset ratio, which measures the sum of average Advances and mortgage loans as a percentage of average Consolidated Obligations (adjusted for certain high-quality liquid assets, as permitted by regulation). In the first nine months of 2024, the Primary Mission Asset ratio averaged 76 percent, above the Finance Agency's preferred ratio of 70 percent. In assessing overall mission achievement, we also consider supplemental sources of Mission Assets and Activities, the most significant of which is Letters of Credit issued for the benefit of members.

The following table summarizes our Mission Assets and Activities.

(In millions)	Ending Balances			Average Balances		
	September 30,		December 31,	Nine Months Ended		Year Ended
	2024	2023	2023	September 30,	December 31,	2023
	2024	2023	2023	2024	2023	2023
<b>Primary Mission Assets <sup>(1)</sup>:</b>						
Advances	\$ 79,946	\$ 70,426	\$ 73,638	\$ 75,589	\$ 87,138	\$ 83,678
Mortgage loans held for portfolio	7,037	6,927	6,960	7,025	6,907	6,917
<b>Total Primary Mission Assets</b>	<b>\$ 86,983</b>	<b>\$ 77,353</b>	<b>\$ 80,598</b>	<b>\$ 82,614</b>	<b>\$ 94,045</b>	<b>\$ 90,595</b>
<b>Supplemental Mission Activities <sup>(2)</sup>:</b>						
Letters of Credit (notional)	\$ 47,744	\$ 45,367	\$ 47,098	\$ 47,235	\$ 43,005	\$ 43,775
Mandatory Delivery Contracts (notional)	37	68	101	59	46	62
Standby bond purchase agreements (notional)	—	—	—	—	2	1
<b>Total Supplemental Mission Activities</b>	<b>\$ 47,781</b>	<b>\$ 45,435</b>	<b>\$ 47,199</b>	<b>\$ 47,294</b>	<b>\$ 43,053</b>	<b>\$ 43,838</b>

(1) Amounts represent principal balances.

(2) Amounts represent off-balance sheet commitments.

Advance principal balances at September 30, 2024 increased \$6.3 billion (nine percent) from year-end 2023 given depository members' steady demand for liquidity. However, average principal Advance balances for the nine months ended September 30, 2024 decreased \$11.5 billion (13 percent) compared to the same period of 2023. Average Advance balances were higher for the nine months ended September 30, 2023 as member demand increased in March 2023 in response to the turmoil in the banking industry and financial markets. Most of these Advances had matured or were prepaid by the end of 2023.

Advance balances are often volatile given our members' ability to quickly, normally on the same day, increase or decrease the amount of their Advances. We believe that a key benefit of membership comes from our business model as a wholesale lender GSE, which provides members flexibility in their Advance funding levels and helps support their asset-liability management needs. We act as a reliable source of funding for our members. Our business model is designed to support significant changes in asset levels without having to undergo material changes in staffing, operations, risk practices, or general resource needs. A key reason for this scalability is that our Capital Plan provides for additional capital when Advances grow and the opportunity for us to retire capital when Advances decline, thereby acting to preserve competitive profitability.

MPP principal balances at September 30, 2024 increased \$0.1 billion (one percent) from the year-end 2023 balance. During the first nine months of 2024, we purchased \$0.6 billion of mortgage loans, while principal reductions were \$0.5 billion. Principal purchases and reductions in the first nine months of 2024 were limited due in large part to the elevated mortgage rate environment.

Letters of Credit increased \$0.6 billion (one percent) from year-end 2023. Letters of Credit balances are primarily used by members to secure public unit deposits. We normally earn fees on Letters of Credit based on the actual average amount of the Letters utilized, which generally is less than the notional amount issued.

## Results of Operations

Our earnings over time reflect the combination of a stable business model and conservative management of risk. Key market driven factors that can cause significant periodic volatility in our profitability include changes in the level of interest rates, changes in spreads between benchmark interest rates and our short-term funding costs, recognition of net amortization from accelerated prepayments of mortgage assets, and fair value adjustments related to the use of derivatives and the associated hedged items. Our profitability may also be affected by our members' overall Advance demand, which is largely influenced by the monetary policies of the U.S. government and its agencies, including the Federal Reserve, and general economic conditions. The table below summarizes our results of operations.

(Dollars in millions)	Three Months Ended September 30,		Nine Months Ended September 30,		Year Ended December 31,
	2024	2023	2024	2023	2023
Net income	\$ 164	\$ 170	\$ 454	\$ 515	\$ 668
Return on average equity (ROE)	10.01 %	10.16 %	9.46 %	9.73 %	9.63 %
Return on average assets	0.51	0.52	0.49	0.49	0.49
Weighted average dividend rate	9.00	8.00	9.00	7.18	7.60
Dividend payout ratio <sup>(1)</sup>	63.4	78.5	70.4	57.6	61.5
Average Secured Overnight Financing Rate (SOFR)	5.27	5.23	5.30	4.90	5.01
ROE spread to average SOFR	4.74	4.93	4.16	4.83	4.62
Dividend rate spread to average SOFR	3.73	2.77	3.70	2.28	2.59

(1) Dividend payout ratio is dividends declared in the period as a percentage of net income.

Net income decreased \$6 million in the three-months comparison period and \$61 million in the nine-months comparison period. The decreases in net income were in part due to lower spreads earned on mortgage loans held for portfolio and the increased voluntary housing contributions noted above. Additionally, in the nine-months comparison period, net income was lower due to net market value changes related to interest rate swaps and associated financial instruments carried at fair value. These net market value changes resulted in net losses in the nine months ended September 30, 2024 compared to net gains in the nine months ended September 30, 2023.

In the first nine months of 2024, we accrued \$51 million for the AHP available to members. In addition to the required AHP assessment, for 2024, we have committed to a minimum of \$42 million, or approximately five percent of 2023 income subject to assessments, in voluntary housing contributions to support our Housing and Community Investment programs. In the first nine months of 2024, we allocated \$38 million to voluntary housing programs.

We strive to provide a competitive return on members' capital investment in our company through quarterly dividend payments. In September 2024, we paid stockholders a quarterly dividend at a 9.00 percent annualized rate on their capital investment in our company, which was 3.73 percentage points above the third quarter average SOFR. After we paid our quarterly dividend, retained earnings totaled \$1.8 billion on September 30, 2024, an increase of eight percent from year-end 2023. We believe the amount of retained earnings is sufficient to protect against members' impairment risk of their capital stock investment in the FHLB and to provide the opportunity to stabilize or increase future dividends.

## Effect of Interest Rate Environment

Trends in market interest rates and the resulting shapes of the market yield curves strongly influence our results of operations and profitability because of how they affect members' demand for Mission Assets and Activities, spreads on assets, funding costs and decisions in managing the tradeoffs in our market risk/return profile. The following table presents key market interest rates (obtained from Bloomberg L.P.).

	Quarter 3 2024		Quarter 2 2024		Quarter 1 2024		Nine Months Ended September 30,		Year 2023	
	Ending	Average	Ending	Average	Ending	Average	Average	Average	Ending	Average
Federal funds effective	4.83 %	5.26 %	5.33 %	5.33 %	5.33 %	5.33 %	5.31 %	4.92 %	5.33 %	5.03 %
SOFR	4.96	5.27	5.33	5.32	5.34	5.31	5.30	4.90	5.38	5.01
2-year U.S. Treasury	3.64	4.05	4.76	4.84	4.62	4.49	4.46	4.53	4.25	4.60
10-year U.S. Treasury	3.78	3.95	4.40	4.45	4.20	4.15	4.18	3.80	3.88	3.96
15-year mortgage current coupon <sup>(1)</sup>	4.20	4.56	5.30	5.31	4.96	5.03	4.96	4.95	4.62	5.11
30-year mortgage current coupon <sup>(1)</sup>	4.96	5.24	5.87	5.90	5.60	5.61	5.58	5.47	5.25	5.62

(1) Current coupon rate of Fannie Mae par mortgage-backed securities (MBS) indications.

On September 30, 2024, the target overnight Federal funds rate was in the range of 4.75 to 5.00 percent, a decrease of 50 basis points from the range on December 31, 2023. In November 2024, the Federal Reserve decreased the target overnight Federal funds rate by 25 basis points to a range of 4.50 to 4.75 percent.

Average overnight rates were approximately 40 basis points higher in the first nine months of 2024 compared to the same period of 2023, while average mortgage rates were nearly flat. Our earnings from capital increased \$4 million in both the three-months and the nine-months comparison periods because of the higher average short-term rates.

During the first nine months of 2024 and throughout 2023, the market risk exposure to changing interest rates was moderate and within policy limits. We believe that longer-term profitability will be competitive, unless interest rates were to increase significantly for a sustained period of time.

## Regulatory and Legislative Developments

Certain regulatory and legislative actions and developments are summarized in this section. See Part II, Item 7. "Management's Discussion and Analysis of Financial Condition and Results of Operations – Regulatory and Legislative Developments" in our 2023 Annual Report on Form 10-K and Part I, Item 2. "Management's Discussion and Analysis of Financial Condition and Results of Operations - Regulatory and Legislative Developments" in our quarterly reports on Form 10-Q for the periods ended March 31, 2024 and June 30, 2024, for a description of certain regulatory and legislative developments that occurred prior to the publication of those reports.

### Advisory Bulletin on FHLBank Member Credit Risk Management

On September 27, 2024, the Finance Agency issued an advisory bulletin setting forth the Finance Agency's expectations that an FHLBank's underwriting and credit decisions should reflect a member's financial condition and not rely solely on the collateral securing the member's credit obligations. The advisory bulletin provides guidance for the FHLBanks to implement policies for credit risk governance, member credit assessment and monitoring of credit conditions, among other considerations. It also provides guidance on the oversight of members in financial distress by recommending implementation of escalation policies, processes for coordination with members' prudential regulators, and management policies addressing default, failure, and insolvency situations. We are comparing this advisory bulletin against our current member credit risk management policies and procedures to assess its potential impact on our business and operations.

### Advisory Bulletin on Federal Home Loan Bank System Climate-Related Risk Management

On September 30, 2024, the Finance Agency issued an advisory bulletin setting forth its expectation that each FHLBank should integrate climate-related risk management into its existing enterprise risk management framework over time. The advisory

bulletin provides that an effective framework should address climate-related risk governance, such as selection of the related risk appetite and setting strategy and objectives, establishing and implementing plans to mitigate, monitor and report material exposures to such risks, and establishing roles and responsibilities for the Board of Directors and management. The advisory bulletin requires the FHLBanks to establish metrics that track exposure to climate-related risks and collect related data to quantify risk exposures, conduct climate-related scenario analyses, implement processes to report and communicate climate-related risks to internal stakeholders, and have a plan to respond to natural disasters and support climate resiliency. We are evaluating the potential impact of the advisory bulletin on our business and operations.

***Proposed Rule on Unsecured Credit Limits for Federal Home Loan Banks***

On October 3, 2024, the Finance Agency published a proposed rule with a comment deadline of December 2, 2024 to amend the Finance Agency's regulation on capital requirements (Capital Regulation) to modify unsecured credit limits for FHLBanks. The proposed rule would include interest bearing deposit accounts (IBDAs) in a category of authorized overnight investments that would be excluded from the general limit on unsecured credit to a single counterparty. IBDAs are non-maturity deposits in approved counterparties which may be used to manage liquidity. The proposed rule would, among other things, increase the frequency of the required performance of certain capital calculations and clarify that certain non-interest-bearing deposit accounts (such as settlement, payment or other transactional accounts) are to be considered unsecured extensions of credit subject to the Capital Regulation's unsecured general or overall (less restrictive) limit. Although excluding IBDAs from the general unsecured credit limit could provide greater flexibility for our liquidity management, several of the other proposed changes, if adopted, could result in significant changes to our current business processes. We are evaluating the potential impact of the proposed rule on our business and operations.

***Proposed Rule on Federal Home Loan Bank System Boards of Directors and Executive Management***

On October 21, 2024, the Finance Agency proposed revisions to its regulations addressing boards of directors and overall corporate governance of the FHLBanks and the Office of Finance. The comment deadline is February 3, 2025. If adopted as presented, the proposed rule would, among other things: (1) impact director compensation by allowing the Director of the Finance Agency to establish an annual amount of director compensation that the Director determines is reasonable; (2) require us to complete and submit background checks to the Finance Agency on every nominee for a directorship; (3) impact public interest independent director qualifications, in part by requiring a person to have advocated for, or otherwise acted primarily on behalf of or for the direct benefit of, consumers or the community to meet the representation requirement; (4) expand the list of qualifying experiences for all independent directors to include artificial intelligence, information technology and security, climate-related risk, Community Development Financial Institutions, business models, and modeling; and (5) establish a review process for director performance and participation, together with a process for removing directors for cause. Other proposed revisions, address, among other things, conflicts of interest policies, covering all employees, including specific limitations on executive officers and senior management and record retention.

While some proposed revisions would codify existing guidance and practice, several of the proposed revisions could result in significant changes to the nomination, election and retention of our Board of Directors. Additional director eligibility requirements and limitations on and potential reductions or limitations to director compensation resulting from the proposed rule could hinder our ability to recruit and retain the talent and expertise that are critical to our ability to satisfy our mission, particularly given the growing complexities of the finance industry. We continue to analyze the impact that the proposed rule could have on us.

## **ANALYSIS OF FINANCIAL CONDITION**

### **Credit Services**

#### **Credit Activity and Advance Composition**

The table below shows trends in Advance balances by major programs and in the notional amount of Letters of Credit.

(Dollars in millions)	September 30, 2024		December 31, 2023	
	Balance	Percent <sup>(1)</sup>	Balance	Percent <sup>(1)</sup>
Adjustable/Variable-Rate Indexed:				
SOFR	\$ 24,653	31 %	\$ 30,306	41 %
Other	7,599	9	1,217	2
Total	32,252	40	31,523	43
Fixed-Rate:				
Repurchase based (REPO)	6,655	8	7,232	10
Regular Fixed-Rate	38,707	49	30,805	42
Putable <sup>(2)</sup>	595	1	565	1
Amortizing/Mortgage Matched	1,063	1	1,210	1
Other	674	1	2,303	3
Total	47,694	60	42,115	57
Total Advances Principal	\$ 79,946	100 %	\$ 73,638	100 %
Letters of Credit (notional) <sup>(3)</sup>	\$ 47,744		\$ 47,098	

(1) As a percentage of total Advances principal.

(2) Excludes Putable Advances where the related put options have expired or where the Advance is indexed to a variable-rate. These Advances are classified based on their current terms.

(3) Represents the amount of an off-balance sheet commitment.

Advance principal balances on September 30, 2024 increased \$6.3 billion compared to year-end 2023. The increase in Advances resulted primarily from depository members' steady demand for liquidity. The future levels of Advance balances are difficult to predict and depend on many factors, including changes in the level of liquidity in the financial markets, changes in our members' deposit levels compared to loan growth and the general health of the economy.

Letters of Credit are issued on behalf of members to support certain obligations of members (or members' customers) to third-party beneficiaries. Letters of Credit increased \$0.6 billion (one percent) in the first nine months of 2024 as members continue to use them primarily to secure higher levels of public unit deposits. Letters of Credit usually expire without being drawn upon.

The following tables present principal balances for the five members with the largest Advance borrowings.

(Dollars in millions)

September 30, 2024			December 31, 2023		
Name	Principal Amount of Advances	Percent of Total Principal Amount of Advances	Name	Principal Amount of Advances	Percent of Total Principal Amount of Advances
U.S. Bank, N.A.	\$ 19,500	24 %	JPMorgan Chase Bank, N.A.	\$ 14,000	19 %
JPMorgan Chase Bank, N.A.	14,000	18	U.S. Bank, N.A.	10,000	14
Keybank, N.A.	4,832	6	Keybank, N.A.	9,836	13
Third Federal Savings and Loan Association	4,771	6	Third Federal Savings and Loan Association	5,008	7
The Huntington National Bank	4,501	6	Fifth Third Bank	4,001	5
Total of Top 5	<u>\$ 47,604</u>	<u>60 %</u>	Total of Top 5	<u>\$ 42,845</u>	<u>58 %</u>

### Mortgage Loans Held for Portfolio (Mortgage Purchase Program, or MPP)

MPP balances are influenced by conditions in the housing and mortgage markets, the competitiveness of prices we offer to purchase loans, as well as program features and activity from our largest sellers. We manage purchases and balances at a prudent level relative to capital and total assets to effectively manage market and credit risks consistent with our risk appetite.

The table below shows principal purchases and collections of loans in the MPP for the first nine months of 2024. All loans acquired in the first nine months of 2024 were conventional loans.

(In millions)	MPP Principal
Balance, December 31, 2023	\$ 6,960
Principal purchases	563
Principal collections	(486)
Balance, September 30, 2024	<u>\$ 7,037</u>

We closely track the refinancing incentives of our mortgage assets (including loans in the MPP and MBS) because the option for homeowners to change their principal payments normally represents the largest portion of our market risk exposure and can affect MPP balances. MPP principal paydowns equated to a five percent annual constant prepayment rate during the first nine months of 2024 and all of 2023. Mortgage prepayment rates have remained low due to the elevated mortgage rate environment that has persisted over the last several quarters. Likewise, elevated mortgage rates and low housing inventories have substantially eliminated borrower incentive to refinance and have slowed mortgage purchase originations, which in turn contributed to the slow pace of our purchases of new MPP loans in the first nine months of 2024.

Overall, MPP yields on new purchases and existing portfolio balances, relative to their market and credit risks, are expected to continue to generate a profitable long-term return.

## Investments

The table below presents the ending and average balances of our investment portfolio.

(In millions)	Nine Months Ended		Year Ended	
	September 30, 2024		December 31, 2023	
	Ending Balance	Average Balance	Ending Balance	Average Balance
Liquidity investments	\$ 20,531	\$ 22,705	\$ 23,418	\$ 26,346
MBS	19,219	18,940	19,223	18,106
Other investments <sup>(1)</sup>	—	62	—	532
Total investments	<u>\$ 39,750</u>	<u>\$ 41,707</u>	<u>\$ 42,641</u>	<u>\$ 44,984</u>

(1) The average balance includes the rights or obligations to cash collateral, which are included in the fair value of derivative assets or derivative liabilities on the Statements of Condition at period end.

Liquidity investments are either short-term (primarily overnight), or longer-term investments that consist of U.S. Treasury and GSE obligations. These longer-term investments may be pledged or sold and converted to cash. The ending and average balances of liquidity investments for the nine months ended September 30, 2024 decreased compared to year-end 2023 as the level of Advances were more stable in the first nine months of 2024 compared to the volatility in Advance balances experienced in 2023. It is normal for liquidity investments to vary by up to several billion dollars on a daily basis. Liquidity investment levels can vary significantly based on changes in the amount of actual Advances, anticipated demand for Advances, regulatory liquidity requirements, the availability of acceptable net spreads, and the number of eligible counterparties that meet our unsecured credit risk criteria.

Our overarching strategy for balances of MBS is to keep holdings as close as possible to the regulatory maximum. Finance Agency regulations prohibit us from purchasing MBS if our investment in these securities exceeds three times regulatory capital on the day we intend to purchase the securities. The ratio of MBS to regulatory capital was 2.89 on September 30, 2024. The balance of MBS at September 30, 2024 consisted of \$18.2 billion of securities issued by Fannie Mae or Freddie Mac (of which \$11.4 billion were floating-rate securities), and \$1.0 billion of securities issued by Ginnie Mae (which are primarily fixed rate).

The table below shows principal purchases and paydowns of our MBS for the first nine months of 2024.

(In millions)	MBS Principal
Balance at December 31, 2023	\$ 19,409
Principal purchases	1,857
Principal paydowns	(1,949)
Balance at September 30, 2024	<u>\$ 19,317</u>

During the first nine months of 2024, MBS principal paydowns were at a 13 percent annual constant prepayment rate, an increase compared to the 10 percent rate experienced in all of 2023.

## Consolidated Obligations

We generally fund variable-rate assets with Discount Notes (a portion of which may be swapped), adjustable-rate Bonds, and swapped fixed-rate Bonds because they give us the ability to effectively match the underlying rate reset periods embedded in these assets. Total Consolidated Obligations on September 30, 2024 were \$118.6 billion, an increase of \$3.2 billion compared to the balance at year-end 2023. The balances and composition of our Consolidated Obligations tend to fluctuate with changes in the balances and composition of our assets. In addition, changes in the amount and composition of our funding may be necessary from time to time to meet the days of positive liquidity and asset/liability maturity funding gap requirements discussed in the "Liquidity Risk" section of "Quantitative and Qualitative Disclosures About Risk Management."

## Deposits

Total deposits with us are normally a relatively minor source of funding. Deposits with us are not insured, but are subject to statutory deposit reserve requirements. Total interest-bearing deposits on September 30, 2024 were \$1.2 billion, an increase of \$0.1 billion compared to the balance at year-end 2023. See the "Liquidity Risk" section of "Quantitative and Qualitative Disclosures About Risk Management" for additional information.

## Derivatives Hedging Activity and Liquidity

Our use of derivatives is discussed in the "Effect of the Use of Derivatives on Net Interest Income" and "Non-Interest Income (Loss)" sections in "Results of Operations." Liquidity is discussed in the "Liquidity Risk" section in "Quantitative and Qualitative Disclosures About Risk Management."

## Capital Resources

The following tables present capital amounts and capital-to-assets ratios, on both a GAAP and regulatory basis. We consider the regulatory ratio to be a better representation of financial leverage than the GAAP ratio because, although the GAAP ratio treats mandatorily redeemable capital stock as a liability, it protects investors in our debt in the same manner as GAAP capital stock and retained earnings.

(In millions)	Nine Months Ended		Year Ended	
	September 30, 2024		December 31, 2023	
	Period End	Average	Period End	Average
<b>GAAP and Regulatory Capital</b>				
GAAP Capital Stock	\$ 4,879	\$ 4,693	\$ 4,846	\$ 5,397
Mandatorily Redeemable Capital Stock	15	16	17	34
Regulatory Capital Stock	4,894	4,709	4,863	5,431
Retained Earnings	1,793	1,759	1,658	1,586
Regulatory Capital	<u>\$ 6,687</u>	<u>\$ 6,468</u>	<u>\$ 6,521</u>	<u>\$ 7,017</u>
	Nine Months Ended		Year Ended	
	September 30, 2024		December 31, 2023	
	Period End	Average	Period End	Average
<b>GAAP and Regulatory Capital-to-Assets Ratio</b>				
GAAP	5.18 %	5.13 %	5.18 %	5.07 %
Regulatory <sup>(1)</sup>	5.23	5.18	5.26	5.14

(1) At all times, the FHLB must maintain at least a four percent minimum regulatory capital-to-assets ratio.

Our business model is structured to be able to absorb sharp changes in assets because we can execute commensurate changes in liability and capital stock balances. For example, in the first nine months of 2024, we issued \$1.9 billion of capital stock to members primarily in support of Advance borrowings, while repurchasing \$1.9 billion of excess capital stock no longer supporting Mission Assets and Activities.

Excess capital stock is the amount of stock held by a member (or former member) in excess of that institution's minimum stock ownership requirement. Excess capital stock provides a base of capital to manage financial leverage at prudent levels, augments loss protections for bondholders, and may be used by a member to capitalize additional Mission Assets and Activities, before purchasing activity stock. At September 30, 2024, the amount of excess stock, as defined by our Capital Plan, was \$0.3 billion, a decrease of \$0.3 billion compared to the balance at year-end 2023 due to the repurchase of excess stock noted above.

See the "Capital Adequacy" section in "Quantitative and Qualitative Disclosures About Risk Management" for discussion of our retained earnings.

## **RESULTS OF OPERATIONS**

### **Components of Earnings and Return on Equity**

The following table is a summary income statement for the three and nine months ended September 30, 2024 and 2023. Each ROE percentage is computed by dividing income or expense for the category by the average amount of stockholders' equity for the period.

(Dollars in millions)	Three Months Ended September 30,				Nine Months Ended September 30,			
	2024		2023		2024		2023	
	Amount	ROE <sup>(1)</sup>	Amount	ROE <sup>(1)</sup>	Amount	ROE <sup>(1)</sup>	Amount	ROE <sup>(1)</sup>
Net interest income	\$ 208	12.73 %	\$ 222	13.30 %	\$ 610	12.71 %	\$ 649	12.27 %
Non-interest income (loss):								
Net gains (losses) on trading securities	97	5.90	(37)	(2.25)	71	1.48	(39)	(0.73)
Net gains (losses) on sales of available-for-sale securities	—	(0.01)	—	—	1	0.03	—	—
Net gains (losses) on derivatives	(80)	(4.89)	48	2.87	(52)	(1.08)	36	0.67
Net gains (losses) on financial instruments held under fair value option	(16)	(0.95)	(24)	(1.44)	(23)	(0.49)	2	0.03
Other non-interest income, net	8	0.49	8	0.48	24	0.50	22	0.42
Total non-interest income (loss)	9	0.54	(5)	(0.34)	21	0.44	21	0.39
Total income	217	13.27	217	12.96	631	13.15	670	12.66
Non-interest expense	35	2.15	28	1.66	126	2.64	98	1.85
Affordable Housing Program assessments	18	1.11	19	1.14	51	1.05	57	1.08
Net income	<u>\$ 164</u>	<u>10.01 %</u>	<u>\$ 170</u>	<u>10.16 %</u>	<u>\$ 454</u>	<u>9.46 %</u>	<u>\$ 515</u>	<u>9.73 %</u>

(1) The ROE amounts have been computed using dollars in thousands. Accordingly, recalculations based upon the disclosed amounts in millions may produce nominally different results.

Details on the individual factors contributing to the level and changes in profitability are explained in the sections below.

## Net Interest Income

### Components of Net Interest Income

The following table shows selected components of net interest income.

(Dollars in millions)	Three Months Ended September 30,				Nine Months Ended September 30,			
	2024		2023		2024		2023	
	Amount	% of Earning Assets	Amount	% of Earning Assets	Amount	% of Earning Assets	Amount	% of Earning Assets
Components of net interest rate spread:								
Net (amortization)/accretion <sup>(1)(2)</sup>	\$ (8)	(0.02)%	\$ (5)	(0.02)%	\$ (22)	(0.02)%	\$ (17)	(0.02)%
Prepayment fees on Advances, net <sup>(2)</sup>	—	—	1	0.01	1	—	3	—
Other components of net interest rate spread	124	0.38	138	0.43	362	0.39	398	0.39
Total net interest rate spread	116	0.36	134	0.42	341	0.37	384	0.37
Earnings from funding assets with interest-free capital	92	0.29	88	0.27	269	0.29	265	0.26
Total net interest income/net interest margin <sup>(3)</sup>	\$ 208	0.65 %	\$ 222	0.69 %	\$ 610	0.66 %	\$ 649	0.63 %

- (1) Includes monthly recognition of premiums and discounts paid on purchases of mortgage assets, premiums, discounts and concessions paid on Consolidated Obligations and other hedging basis adjustments.
- (2) This component of net interest rate spread has been segregated to display its relative impact.
- (3) Net interest margin is net interest income as a percentage of average total interest-earning assets.

**Net Amortization/Accretion (generally referred to as amortization):** Net amortization can become substantial and volatile with changes in interest rates, especially for mortgage assets. For example, when mortgage rates decrease, premium amortization of mortgage assets generally increases, which reduces net interest income. In the three and nine months ended September 30, 2024 and 2023, mortgage rates were relatively stable and remained at elevated levels, keeping mortgage refinance activity low.

**Prepayment Fees on Advances:** Fees received from members for their early repayment of certain Advances, which are included in net interest income, are designed to make us economically indifferent to whether members hold Advances to maturity or repay them before maturity. Advance prepayment fees were minimal in the three and nine months ended September 30, 2024 and 2023.

**Other Components of Net Interest Rate Spread:** The total other components of net interest rate spread decreased \$14 million and \$36 million in the three- and nine-months comparison periods, respectively. The net decreases were primarily due to the factors below.

### Nine-Months Comparison

- **Lower average Advance balances-*Unfavorable*:** A decline of \$11.4 billion in average Advance balances decreased net interest income by an estimated \$34 million. Average Advance balances were higher in the nine months ended September 30, 2023 as member demand increased in March 2023 in response to the turmoil in the banking industry and financial markets. Most of these Advances had matured or were prepaid by the end of 2023.
- **Lower spreads earned on mortgage loans held for portfolio-*Unfavorable*:** Lower spreads on mortgage loans held for portfolio decreased net interest income by an estimated \$33 million. Spreads declined primarily because of the maturity of lower-cost debt.
- **Lower average liquidity investments balances-*Unfavorable*:** A decrease of \$3.5 billion in average liquidity investments decreased net interest income by an estimated \$8 million.
- **Lower spreads earned on liquidity investments-*Unfavorable*:** Lower spreads earned on liquidity investments decreased net interest income by an estimated \$5 million. However, the decrease in net interest income was offset by net interest settlements received on related derivatives not receiving hedge accounting, as discussed below.

- **Higher spreads earned on MBS-Favorable:** Higher spreads earned on MBS increased net interest income by an estimated \$21 million. The higher spreads were driven by widening market spreads, which benefited new MBS purchases.
- **Higher spreads earned on Advances-Favorable:** Net interest income earned on Advances increased by an estimated \$15 million, primarily driven by a shift in the composition of Advance balances from overnight to longer-term, floating rate, Advance products.
- **Higher average MBS balances-Favorable:** An increase of \$1.2 billion in average MBS improved net interest income by an estimated \$5 million.
- **Lower price alignment amounts paid on derivatives-Favorable:** Lower price alignment amounts paid improved net interest income by \$5 million. Price alignment amounts approximate the interest that we would pay to counterparties if the variation margin payments for derivative contracts were characterized as collateral pledged to secure outstanding credit exposure.

### **Three-Months Comparison**

- **Lower spreads earned on Advances-Unfavorable:** Lower spreads on Advances decreased net interest income by an estimated \$15 million. The decline in spreads was driven by the issuance of higher-cost, longer-term funding.
- **Lower spreads earned on mortgage loans held for portfolio-Unfavorable:** Lower spreads on mortgage loans held for portfolio decreased net interest income by an estimated \$12 million. Spreads declined primarily because of the maturity of lower-cost debt.
- **Lower spreads earned on liquidity investments-Unfavorable:** Lower spreads earned on liquidity investments decreased net interest income by an estimated \$7 million. However, the decrease in net interest income was partially offset by net interest settlements received on related derivatives not receiving hedge accounting, as discussed below.
- **Lower price alignment amounts paid on derivatives-Favorable:** Lower price alignment amounts paid improved net interest income by \$12 million.
- **Higher spreads earned on MBS-Favorable:** Higher spreads earned on MBS increased net interest income by an estimated \$6 million. The higher spreads were driven by widening market spreads, which benefited new MBS purchases.

**Earnings from Capital:** Earnings from capital increased \$4 million in both the three-months and the nine-months comparison periods because of higher average short-term rates.

### **Average Balance Sheet and Rates**

The following tables provide average balances and rates for major balance sheet accounts, which determine the changes in net interest rate spreads. Interest amounts and average rates are affected by our use of derivatives and the related accounting elections we make. Interest amounts reported for Advances, MBS, Other investments and Swapped Bonds include gains (losses) on hedged items and derivatives in qualifying fair value hedge relationships.

In addition, the net interest settlements of interest receivables or payables and the price alignment amount associated with derivatives in a fair value hedge relationship are included in net interest income and interest rate spread. The price alignment amount approximates the amount of interest that we would receive or pay if the variation margin payments were characterized as collateral pledged to secure outstanding credit exposure on the derivative contracts. However, if the derivatives do not qualify for fair value hedge accounting, the related net interest settlements of interest receivables or payables and the price alignment amount are recorded in “Non-interest income (loss)” as “Net gains (losses) on derivatives” and therefore are excluded from the calculation of net interest rate spread. Amortization associated with some hedging-related basis adjustments is also reflected in net interest income, which affects interest rate spread.

[Table of Contents](#)

(Dollars in millions)	Three Months Ended			Three Months Ended		
	September 30, 2024			September 30, 2023		
	Average Balance	Interest	Average Rate <sup>(1)</sup>	Average Balance	Interest	Average Rate <sup>(1)</sup>
<b>Assets:</b>						
Advances <sup>(2)</sup>	\$ 76,354	\$ 1,099	5.73 %	\$ 74,909	\$ 1,058	5.61 %
Mortgage loans held for portfolio <sup>(3)</sup>	7,197	60	3.32	7,030	53	3.00
Securities purchased under agreements to resell	1,914	26	5.36	2,288	31	5.27
Federal funds sold	12,028	161	5.34	12,684	170	5.31
Interest-bearing deposits in banks <sup>(4)</sup>	2,456	33	5.38	2,501	33	5.23
MBS <sup>(5)</sup>	19,124	264	5.48	18,884	249	5.24
Other investments <sup>(5)</sup>	9,245	124	5.35	9,327	124	5.28
Loans to other FHLBanks	—	—	—	19	—	5.41
Total interest-earning assets	128,318	1,767	5.48	127,642	1,718	5.34
Other assets	767			1,375		
Total assets	<u>\$ 129,085</u>			<u>\$ 129,017</u>		
<b>Liabilities and Capital:</b>						
Term deposits	\$ 141	2	5.25	\$ 106	1	4.97
Other interest bearing deposits <sup>(4)</sup>	989	12	4.82	1,112	14	4.85
Discount Notes	18,175	240	5.26	34,740	446	5.10
Unswapped fixed-rate Bonds	12,133	86	2.81	12,290	69	2.23
Unswapped adjustable-rate Bonds	81,623	1,118	5.45	52,031	707	5.39
Swapped Bonds	8,073	101	4.99	20,198	258	5.07
Mandatorily redeemable capital stock	15	—	8.98	51	1	8.59
Total interest-bearing liabilities	121,149	1,559	5.12	120,528	1,496	4.92
Other liabilities	1,414			1,862		
Total capital	6,522			6,627		
Total liabilities and capital	<u>\$ 129,085</u>			<u>\$ 129,017</u>		
Net interest rate spread			<u>0.36 %</u>			<u>0.42 %</u>
Net interest income and net interest margin <sup>(6)</sup>		<u>\$ 208</u>	<u>0.65 %</u>		<u>\$ 222</u>	<u>0.69 %</u>
Average interest-earning assets to interest-bearing liabilities			<u>105.92 %</u>			<u>105.90 %</u>

- (1) Amounts used to calculate average rates are based on dollars in thousands. Accordingly, recalculations based upon the disclosed amounts in millions may not produce the same results.
- (2) Interest on Advances includes prepayment fees of \$1 million for the three months ended September 30, 2023. Advance prepayment fees for the three months ended September 30, 2024 totaled less than \$1 million.
- (3) Non-accrual loans are included in average balances used to determine average rate.
- (4) The average balance amounts include the rights or obligations to cash collateral, which are included in the fair value of derivative assets or derivative liabilities on the Statements of Condition at period end.
- (5) Includes available-for-sale securities based on their amortized costs. The yield information does not give effect to changes in fair value that are reflected as a component of stockholders' equity for available-for-sale securities.
- (6) Net interest margin is net interest income as a percentage of average total interest-earning assets.

[Table of Contents](#)

(Dollars in millions)	Nine Months Ended			Nine Months Ended		
	September 30, 2024			September 30, 2023		
	Average Balance	Interest	Average Rate <sup>(1)</sup>	Average Balance	Interest	Average Rate <sup>(1)</sup>
<b>Assets:</b>						
Advances <sup>(2)</sup>	\$ 75,306	\$ 3,236	5.74 %	\$ 86,735	\$ 3,396	5.23 %
Mortgage loans held for portfolio <sup>(3)</sup>	7,174	177	3.30	7,058	158	2.99
Securities purchased under agreements to resell	1,987	80	5.39	3,028	113	5.00
Federal funds sold	9,501	383	5.38	11,823	446	5.04
Interest-bearing deposits in banks <sup>(4)</sup>	2,009	82	5.43	2,565	94	4.90
MBS <sup>(5)</sup>	18,977	780	5.49	17,824	658	4.93
Other investments <sup>(5)</sup>	9,270	371	5.34	9,409	348	4.95
Loans to other FHLBanks	6	—	5.40	29	1	4.94
Total interest-earning assets	124,230	5,109	5.50	138,471	5,214	5.03
Other assets	721			1,304		
Total assets	<u>\$124,951</u>			<u>\$139,775</u>		
<b>Liabilities and Capital:</b>						
Term deposits	\$ 138	5	5.28	\$ 85	3	3.95
Other interest bearing deposits <sup>(4)</sup>	1,017	37	4.88	1,091	36	4.46
Discount Notes	19,574	775	5.29	48,884	1,762	4.82
Unswapped fixed-rate Bonds	11,759	239	2.71	12,353	201	2.17
Unswapped adjustable-rate Bonds	72,502	2,974	5.48	53,728	2,036	5.07
Swapped Bonds	12,221	468	5.12	14,700	525	4.78
Mandatorily redeemable capital stock	17	1	9.00	40	2	7.78
Total interest-bearing liabilities	117,228	4,499	5.13	130,881	4,565	4.66
Other liabilities	1,310			1,822		
Total capital	6,413			7,072		
Total liabilities and capital	<u>\$124,951</u>			<u>\$139,775</u>		
Net interest rate spread			<u>0.37 %</u>			<u>0.37 %</u>
Net interest income and net interest margin <sup>(6)</sup>		<u>\$ 610</u>	<u>0.66 %</u>		<u>\$ 649</u>	<u>0.63 %</u>
Average interest-earning assets to interest-bearing liabilities			<u>105.97 %</u>			<u>105.80 %</u>

(1) Amounts used to calculate average rates are based on dollars in thousands. Accordingly, recalculations based upon the disclosed amounts in millions may not produce the same results.

(2) Interest on Advances includes prepayment fees of \$1 million and \$3 million for the nine months ended September 30, 2024 and 2023, respectively.

(3) Non-accrual loans are included in average balances used to determine average rate.

(4) The average balance amounts include the rights or obligations to cash collateral, which are included in the fair value of derivative assets or derivative liabilities on the Statements of Condition at period end.

(5) Includes available-for-sale securities based on their amortized costs. The yield information does not give effect to changes in fair value that are reflected as a component of stockholders' equity for available-for-sale securities.

(6) Net interest margin is net interest income as a percentage of average total interest-earning assets.

Rates on our interest-bearing assets and liabilities generally increased in the three and nine months ended September 30, 2024 compared to the same periods of 2023, as these assets and liabilities have repriced to the higher interest rates.

***Volume/Rate Analysis***

Changes in both average balances (volume) and interest rates influence changes in net interest income, as shown in the following table.

(In millions)	Three Months Ended September 30, 2024 over 2023			Nine Months Ended September 30, 2024 over 2023		
	Volume <sup>(1)(3)</sup>	Rate <sup>(2)(3)</sup>	Total	Volume <sup>(1)(3)</sup>	Rate <sup>(2)(3)</sup>	Total
<u>Increase (decrease) in interest income</u>						
Advances	\$ 21	\$ 20	\$ 41	\$ (473)	\$ 313	\$ (160)
Mortgage loans held for portfolio	1	6	7	3	16	19
Securities purchased under agreements to resell	(5)	—	(5)	(41)	8	(33)
Federal funds sold	(9)	—	(9)	(92)	29	(63)
Interest-bearing deposits in banks	(1)	1	—	(22)	10	(12)
MBS	3	12	15	44	78	122
Other investments	(1)	1	—	(5)	28	23
Loans to other FHLBanks	—	—	—	(1)	—	(1)
Total	9	40	49	(587)	482	(105)
<u>Increase (decrease) in interest expense</u>						
Term deposits	1	—	1	2	—	2
Other interest-bearing deposits	(2)	—	(2)	(2)	3	1
Discount Notes	(218)	12	(206)	(1,146)	159	(987)
Unswapped fixed-rate Bonds	(1)	18	17	(10)	48	38
Unswapped adjustable-rate Bonds	405	6	411	759	179	938
Swapped Bonds	(152)	(5)	(157)	(93)	36	(57)
Mandatorily redeemable capital stock	(1)	—	(1)	(2)	1	(1)
Total	32	31	63	(492)	426	(66)
Increase (decrease) in net interest income	\$ (23)	\$ 9	\$ (14)	\$ (95)	\$ 56	\$ (39)

(1) Volume changes are calculated as the change in volume multiplied by the prior year rate.

(2) Rate changes are calculated as the change in rate multiplied by the prior year average balance.

(3) Changes that are not identifiable as either volume-related or rate-related, but rather are equally attributable to both volume and rate changes, have been allocated to the volume and rate categories based upon the proportion of the absolute value of the volume and rate changes.

***Effect of the Use of Derivatives on Net Interest Income***

The following tables show the impact on net interest income from the effect of derivatives and hedging activities. As noted above, gains (losses) on hedged items and derivatives in qualifying fair value hedge relationships are recorded in interest income or expense. In addition, for derivatives designated as a fair value hedge, the net interest settlements of interest receivables or payables and the price alignment amount related to such derivatives are recognized as adjustments to the interest income or expense of the designated hedged item. As such, all the effects on earnings of derivatives qualifying for fair value hedge accounting are reflected in net interest income. The effect on earnings from derivatives not receiving fair value hedge accounting is provided in the “Non-Interest Income (Loss)” section below.

(In millions)

	Advances	Investment Securities	Bonds
<b>Three Months Ended September 30, 2024</b>			
Gains (losses) on designated fair value hedges	\$ —	\$ 4	\$ —
Net interest settlements included in net interest income	113	88	(7)
Price alignment amount <sup>(1)</sup>	(2)	(9)	—
Increase (decrease) to net interest income	<u>\$ 111</u>	<u>\$ 83</u>	<u>\$ (7)</u>

**Three Months Ended September 30, 2023**

(Amortization)/accretion of hedging activities in net interest income	\$ —	\$ (1)	\$ —
Gains (losses) on designated fair value hedges	—	1	—
Net interest settlements included in net interest income	96	96	(8)
Price alignment amount <sup>(1)</sup>	(7)	(16)	—
Increase (decrease) to net interest income	<u>\$ 89</u>	<u>\$ 80</u>	<u>\$ (8)</u>

(In millions)

	Advances	Investment Securities	Mortgage Loans	Bonds
<b>Nine Months Ended September 30, 2024</b>				
(Amortization)/accretion of hedging activities in net interest income	\$ —	\$ (2)	\$ (1)	\$ —
Gains (losses) on designated fair value hedges	—	7	—	—
Net interest settlements included in net interest income	326	273	—	(24)
Price alignment amount <sup>(1)</sup>	(13)	(36)	—	—
Increase (decrease) to net interest income	<u>\$ 313</u>	<u>\$ 242</u>	<u>\$ (1)</u>	<u>\$ (24)</u>

**Nine Months Ended September 30, 2023**

(Amortization)/accretion of hedging activities in net interest income	\$ —	\$ (1)	\$ (1)	\$ —
Gains (losses) on designated fair value hedges	—	4	—	—
Net interest settlements included in net interest income	238	252	—	(24)
Price alignment amount <sup>(1)</sup>	(16)	(38)	—	—
Increase (decrease) to net interest income	<u>\$ 222</u>	<u>\$ 217</u>	<u>\$ (1)</u>	<u>\$ (24)</u>

(1) This amount is for derivatives for which variation margin is characterized as a daily settled contract.

We primarily use derivatives to more closely match actual cash flows between assets and liabilities by synthetically converting the fixed interest rates on certain Advances, investments and Consolidated Obligations to adjustable rates tied to an eligible benchmark rate (e.g., the Federal funds effective rate or SOFR). The increases in average short-term interest rates primarily benefited net interest income in both the three and nine months ended September 30, 2024 as the conversion of certain Advances' and investments' fixed interest rates to adjustable-coupon rates resulted in an increase in the amount of net interest settlements being received. The fluctuation in net interest income from the use of derivatives was acceptable because it enabled us to lower market risk exposure.

## Non-Interest Income (Loss)

Non-interest income (loss) consists of certain gains (losses) on investment securities, derivatives activities, financial instruments held under the fair value option, and other non-interest earning activities. The following tables present the net effect of derivatives and hedging activities on non-interest income (loss). The effects of derivatives and hedging activities on non-interest income (loss) relate only to derivatives not qualifying for fair value hedge accounting.

(In millions)	Advances	Investment Securities	Mortgage Loans	Bonds	Discount Notes	Other	Total
<b>Three Months Ended September 30, 2024</b>							
<u>Net effect of derivatives and hedging activities</u>							
Gains (losses) on derivatives not receiving hedge accounting	\$ (7)	\$ (102)	\$ —	\$ 14	\$ 9	\$ —	\$ (86)
Net interest settlements on derivatives not receiving hedge accounting	1	16	—	(7)	(3)	—	7
Price alignment amount <sup>(1)</sup>	—	—	—	—	—	(1)	(1)
Net gains (losses) on derivatives	(6)	(86)	—	7	6	(1)	(80)
Gains (losses) on trading securities <sup>(2)</sup>	—	97	—	—	—	—	97
Gains (losses) on financial instruments held under fair value option <sup>(3)</sup>	7	—	—	(18)	(5)	—	(16)
Total net effect on non-interest income (loss)	\$ 1	\$ 11	\$ —	\$ (11)	\$ 1	\$ (1)	\$ 1

<b>Three Months Ended September 30, 2023</b>							
<u>Net effect of derivatives and hedging activities</u>							
Gains (losses) on derivatives not receiving hedge accounting	\$ 1	\$ 29	\$ 5	\$ 10	\$ 4	\$ —	\$ 49
Net interest settlements on derivatives not receiving hedge accounting	1	13	—	(6)	(7)	—	1
Price alignment amount <sup>(1)</sup>	—	—	—	—	—	(2)	(2)
Net gains (losses) on derivatives	2	42	5	4	(3)	(2)	48
Gains (losses) on trading securities <sup>(2)</sup>	—	(38)	—	—	—	—	(38)
Gains (losses) on financial instruments held under fair value option <sup>(3)</sup>	(2)	—	—	(17)	(5)	—	(24)
Total net effect on non-interest income (loss)	\$ —	\$ 4	\$ 5	\$ (13)	\$ (8)	\$ (2)	\$ (14)

(In millions)	Advances	Investment Securities	Mortgage Loans	Bonds	Discount Notes	Other	Total
<b>Nine Months Ended September 30, 2024</b>							
<u>Net effect of derivatives and hedging activities</u>							
Gains (losses) on derivatives not receiving hedge accounting	\$ (2)	\$ (80)	\$ (1)	\$ 13	\$ 3	\$ —	\$ (67)
Net interest settlements on derivatives not receiving hedge accounting	4	44	—	(20)	(9)	—	19
Price alignment amount <sup>(1)</sup>	—	—	—	—	—	(4)	(4)
Net gains (losses) on derivatives	2	(36)	(1)	(7)	(6)	(4)	(52)
Gains (losses) on trading securities <sup>(2)</sup>	—	71	—	—	—	—	71
Gains (losses) on financial instruments held under fair value option <sup>(3)</sup>	2	—	—	(25)	—	—	(23)
Total net effect on non-interest income (loss)	\$ 4	\$ 35	\$ (1)	\$ (32)	\$ (6)	\$ (4)	\$ (4)

<b>Nine Months Ended September 30, 2023</b>							
<u>Net effect of derivatives and hedging activities</u>							
Gains (losses) on derivatives not receiving hedge accounting	\$ 4	\$ 25	\$ —	\$ 9	\$ 11	\$ —	\$ 49
Net interest settlements on derivatives not receiving hedge accounting	1	38	—	(26)	(22)	—	(9)
Price alignment amount <sup>(1)</sup>	—	—	—	—	—	(4)	(4)
Net gains (losses) on derivatives	5	63	—	(17)	(11)	(4)	36
Gains (losses) on trading securities <sup>(2)</sup>	—	(39)	—	—	—	—	(39)
Gains (losses) on financial instruments held under fair value option <sup>(3)</sup>	(3)	—	—	10	(5)	—	2
Total net effect on non-interest income (loss)	\$ 2	\$ 24	\$ —	\$ (7)	\$ (16)	\$ (4)	\$ (1)

(1) This amount is for derivatives for which variation margin is characterized as a daily settled contract.

(2) Includes only those gains (losses) on trading securities that have an assigned economic derivative; therefore, this line item may not agree to the Statements of Income.

(3) Includes only those gains or losses on financial instruments held at fair value that have an economic derivative "assigned."

The decrease in earnings from the net effect of derivatives and hedging activities in the nine months ended September 30, 2024 compared to the same period of 2023 was primarily due to net market value changes related to Bonds held under the fair value option and the related derivatives hedging them. The net market value changes resulted in net losses in the nine months ended September 30, 2024 compared to net gains in the same period of 2023. We elect the fair value option for certain financial instruments that either do not qualify for hedge accounting or may be at risk for not meeting hedge effectiveness requirements. Because we intend to hold these derivatives and the related financial instruments to maturity, any unrealized gains or losses are expected to reverse in future periods. The impact of the net market value changes was partially offset by net interest settlements being received on interest rate swaps in the nine months ended September 30, 2024 rather than net payments being made in the same period of 2023. The increase in earnings from the net effect of derivatives and hedging activities in the three months ended September 30, 2024 compared to the same period of 2023 was primarily due to net market value changes related to interest rate swaps and associated financial instruments carried at fair value. These net market value changes resulted in lower net losses in the three months ended September 30, 2024 compared to the losses in the same period of 2023.

In the tables above, "Gains (losses) on trading securities" consist of fixed-rate U.S. Treasury and GSE obligations that have been swapped to a variable rate. Trading securities are recorded at fair value, with changes in fair value reported in non-interest income (loss). There are a number of factors that affect the fair value of these securities, such as changes in interest rates, the passage of time, and volatility. By hedging these trading securities, the gains or losses on these trading securities will generally be offset by the gains or losses on the associated interest rate swaps.

As noted above, the fluctuation in earnings from the use of derivatives was acceptable because it enabled us to lower market risk exposure.

## Non-Interest Expense

The following table presents non-interest expense.

(In millions)	Three Months Ended September 30,		Nine Months Ended September 30,	
	2024	2023	2024	2023
<u>Non-interest expense</u>				
Compensation and benefits	\$ 14	\$ 13	\$ 42	\$ 41
Other operating expense	9	8	28	24
Finance Agency	3	3	9	8
Office of Finance	2	2	5	5
Voluntary housing contributions	6	—	38	15
Other	1	2	4	5
Total non-interest expense	<u>\$ 35</u>	<u>\$ 28</u>	<u>\$ 126</u>	<u>\$ 98</u>

Our business is designed to support significant changes in asset levels without having to undergo material changes in staffing, operations, risk practices, or general resource needs. Total non-interest expense increased in the three and nine months ended September 30, 2024 compared to the same periods of 2023 primarily as a result of making voluntary housing contributions to help address affordable housing needs and community investment in our District. These voluntary housing contributions are in addition to the 10 percent of earnings that are required to be set aside as AHP assessments.

## Segment Information

Note 11 of the Notes to Unaudited Financial Statements presents information on our two operating business segments. We manage financial operations and market risk exposure primarily at the macro level, and within the context of the entire balance sheet, rather than exclusively at the level of individual segments. Under this approach, the market risk/return profile of each segment may not match, or possibly even have the same trends as, what would occur if we managed each segment on a stand-alone basis. The tables below summarize each segment's operating results for the periods shown.

(Dollars in millions)	Traditional Member Finance	MPP	Total
<b>Three Months Ended September 30, 2024</b>			
Net interest income (loss)	\$ 184	\$ 24	\$ 208
Net income (loss)	\$ 146	\$ 18	\$ 164
Average assets	\$ 120,987	\$ 8,098	\$ 129,085
Assumed average capital allocation	\$ 6,113	\$ 409	\$ 6,522
Return on average assets <sup>(1)</sup>	0.48 %	0.89 %	0.51 %
Return on average equity <sup>(1)</sup>	9.50 %	17.59 %	10.01 %
<b>Three Months Ended September 30, 2023</b>			
Net interest income (loss)	\$ 186	\$ 36	\$ 222
Net income (loss)	\$ 135	\$ 35	\$ 170
Average assets	\$ 120,358	\$ 8,659	\$ 129,017
Assumed average capital allocation	\$ 6,182	\$ 445	\$ 6,627
Return on average assets <sup>(1)</sup>	0.45 %	1.59 %	0.52 %
Return on average equity <sup>(1)</sup>	8.67 %	30.86 %	10.16 %
<b>Nine Months Ended September 30, 2024</b>			
Net interest income (loss)	\$ 538	\$ 72	\$ 610
Net income (loss)	\$ 402	\$ 52	\$ 454
Average assets	\$ 117,198	\$ 7,753	\$ 124,951
Assumed average capital allocation	\$ 6,015	\$ 398	\$ 6,413
Return on average assets <sup>(1)</sup>	0.46 %	0.90 %	0.49 %
Return on average equity <sup>(1)</sup>	8.93 %	17.53 %	9.46 %
<b>Nine Months Ended September 30, 2023</b>			
Net interest income (loss)	\$ 544	\$ 105	\$ 649
Net income (loss)	\$ 430	\$ 85	\$ 515
Average assets	\$ 130,988	\$ 8,787	\$ 139,775
Assumed average capital allocation	\$ 6,626	\$ 446	\$ 7,072
Return on average assets <sup>(1)</sup>	0.44 %	1.30 %	0.49 %
Return on average equity <sup>(1)</sup>	8.66 %	25.55 %	9.73 %

(1) Amounts used to calculate returns are based on numbers in thousands. Accordingly, recalculations based upon the disclosed amounts in millions may not produce the same results.

***Traditional Member Finance Segment***

Net income declined in the nine-months comparison largely because of net market value changes related to interest rate swaps and associated financial instruments carried at fair value. The market value changes resulted in net losses in the nine months ended September 30, 2024 compared to net gains in the same period of 2023. Additionally, in the nine months comparison period, net income decreased due to lower average Advance balances. Net income declined in the three-months comparison largely because of lower spreads earned on Advances. Additionally, the lower net income in both comparison periods was partially due to higher voluntary housing contributions in the three and nine months ended September 30, 2024 compared to the same periods of 2023.

***MPP Segment***

Earnings from the MPP segment decreased in the three and nine months ended September 30, 2024 compared to the same periods of 2023 primarily because of lower net interest income. Net interest income decreased as the benefits from low cost debt diminished in the three and nine months ended September 30, 2024. Additionally, in the three-months comparison period, net income decreased because of net unrealized losses on derivatives related to the MPP segment in the three months ended September 30, 2024 compared to net gains in the same period of 2023.

**QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT RISK MANAGEMENT**

**Market Risk**

***Market Value of Equity and Duration of Equity***

Two key measures of long-term market risk exposure are the sensitivities of the market value of equity and the duration of equity to changes in interest rates and other variables, as presented in the following tables for various instantaneous and permanent interest rate shocks (in basis points). Market value of equity represents the difference between the market value of total assets and the market value of total liabilities, including off-balance sheet items. The duration of equity provides an estimate of the change in market value of equity to further changes in interest rates. We compiled average results using data for each month end.

***Market Value of Equity***

(Dollars in millions)	Down 300	Down 200	Down 100	Flat Rates	Up 100	Up 200	Up 300
<b><u>Average Results</u></b>							
<b><i>2024 Year-to-Date</i></b>							
Market Value of Equity	\$ 6,095	\$ 6,116	\$ 6,098	\$ 6,043	\$ 5,964	\$ 5,876	\$ 5,788
% Change from Flat Case	0.9 %	1.2 %	0.9 %	—	(1.3)%	(2.8)%	(4.2)%
<b><i>2023 Full Year</i></b>							
Market Value of Equity	\$ 6,919	\$ 6,788	\$ 6,688	\$ 6,579	\$ 6,461	\$ 6,347	\$ 6,241
% Change from Flat Case	5.2 %	3.2 %	1.7 %	—	(1.8)%	(3.5)%	(5.1)%
<b><u>Month-End Results</u></b>							
<b><i>September 30, 2024</i></b>							
Market Value of Equity	\$ 6,243	\$ 6,309	\$ 6,326	\$ 6,297	\$ 6,228	\$ 6,139	\$ 6,046
% Change from Flat Case	(0.9)%	0.2 %	0.5 %	—	(1.1)%	(2.5)%	(4.0)%
<b><i>December 31, 2023</i></b>							
Market Value of Equity	\$ 6,241	\$ 6,170	\$ 6,084	\$ 5,968	\$ 5,845	\$ 5,718	\$ 5,595
% Change from Flat Case	4.6 %	3.4 %	1.9 %	—	(2.1)%	(4.2)%	(6.2)%

**Duration of Equity**

(In years)	Down 300	Down 200	Down 100	Flat Rates	Up 100	Up 200	Up 300
<b><u>Average Results</u></b>							
2024 Year-to-Date	(0.4)	0.1	0.8	1.3	1.5	1.6	1.5
2023 Full Year	1.8	1.4	1.8	1.8	1.8	1.7	1.5
<b><u>Month-End Results</u></b>							
September 30, 2024	(1.1)	(0.5)	0.2	0.9	1.4	1.6	1.6
December 31, 2023	1.2	1.5	1.8	2.0	2.2	2.1	1.9

The mortgage assets portfolio normally accounts for almost all market risk exposure because of prepayment volatility that we cannot completely hedge while maintaining sufficient net spreads. The overall market risk exposure to changing interest rates was well within policy limits during the periods presented. At September 30, 2024, market risk exposure to falling and rising rate shocks remained stable.

Based on the totality of our risk analysis, we expect that overall profitability, defined as the level of ROE compared with short-term market rates, will be competitive over the long term unless interest rates increase by large amounts in a short period of time. Substantial declines in long-term interest rates could decrease income temporarily before reverting to average levels. This temporary reduction in income would be driven by additional recognition of mortgage asset premiums as the incentive for borrowers to refinance results in faster than anticipated repayments of those mortgage assets. However, we believe the mortgage assets portfolio will continue to provide an acceptable risk-adjusted return consistent with our risk appetite philosophy.

**Capital Adequacy**

**Retained Earnings**

We must hold sufficient capital to protect against exposure to various risks, including market, credit, and operational risks. We regularly conduct a variety of measurements and assessments for capital adequacy. At September 30, 2024, our capital management policy set forth approximately \$925 million as the minimum amount of retained earnings we believe is necessary to mitigate impairment risk.

The following table presents retained earnings.

(In millions)	September 30, 2024	December 31, 2023
Unrestricted retained earnings	\$ 1,008	\$ 964
Restricted retained earnings <sup>(1)</sup>	785	694
Total retained earnings	<u>\$ 1,793</u>	<u>\$ 1,658</u>

(1) Pursuant to the FHLBank System's Joint Capital Enhancement Agreement we are not permitted to distribute as dividends.

As indicated in the table above, our current balance of retained earnings exceeds the policy minimum, which we expect will continue to be the case as we bolster capital adequacy over time by allocating a portion of earnings to the restricted retained earnings account.

**Market Capitalization Ratios**

We measure two sets of market capitalization ratios. One measures the market value of equity (i.e., total capital) relative to the par value of regulatory capital stock (which is GAAP capital stock and mandatorily redeemable capital stock). The other measures the market value of total capital relative to the book value of total capital, which includes all components of capital, and mandatorily redeemable capital stock. The measures provide a point-in-time indication of the FHLB's liquidation or franchise value and can also serve as a measure of realized or potential market risk exposure.

## Table of Contents

The following table presents the market value of equity to regulatory capital stock (excluding retained earnings) for several interest rate environments.

	September 30, 2024	December 31, 2023
Market Value of Equity to Par Value of Regulatory Capital Stock - Base Case (Flat Rates) Scenario	129 %	123 %
Market Value of Equity to Par Value of Regulatory Capital Stock - Down Shock <sup>(1)</sup>	129	127
Market Value of Equity to Par Value of Regulatory Capital Stock - Up Shock <sup>(2)</sup>	125	118

(1) Represents a down shock of 200 basis points.

(2) Represents an up shock of 200 basis points.

A base case value below 100 percent could indicate that, in the remote event of an immediate liquidation scenario involving redemption of all capital stock, capital stock may be returned to stockholders at a value below par. This could be due to experiencing risks that lower the market value of capital and/or to having an insufficient amount of retained earnings. In the first nine months of 2024, the market capitalization ratios in the scenarios presented continued to be above our policy requirements. The base case ratio at September 30, 2024 was still well above 100 percent because retained earnings were 37 percent of regulatory capital stock and we maintained stable market risk exposure.

The following table presents the market value of equity to the book value of total capital and mandatorily redeemable capital stock.

	September 30, 2024	December 31, 2023
Market Value of Equity to Book Value of Capital - Base Case (Flat Rates) Scenario <sup>(1)</sup>	95 %	93 %
Market Value of Equity to Book Value of Capital - Down Shock <sup>(1)(2)</sup>	95	96
Market Value of Equity to Book Value of Capital - Up Shock <sup>(1)(3)</sup>	92	89

(1) Capital includes total capital and mandatorily redeemable capital stock.

(2) Represents a down shock of 200 basis points.

(3) Represents an up shock of 200 basis points.

A base-case value below 100 percent can indicate that we have realized or could realize risks (especially market risk), such that the market value of total capital owned by stockholders is below the book value of total capital. The base-case ratio at September 30, 2024 indicates that the market value of total capital is \$340 million below the book value of total capital. In a scenario in which interest rates increase 200 basis points, the market value of total capital would be \$498 million below the book value of total capital. This indicates that in a liquidation scenario, stockholders would not receive the full sum of their total equity ownership in the FHLB. We believe the likelihood of a liquidation scenario is extremely remote.

## **Credit Risk**

### ***Overview***

We believe our risk management practices, discussed below, minimize residual credit risk levels. At September 30, 2024, we had no loan loss reserves or impairment recorded for Credit Services, investments and derivatives and had a minimal amount of credit risk exposure in the MPP.

### ***Credit Services***

**Overview:** The objective of our credit risk management activities is to equalize risk exposure across members and counterparties to a zero level of expected losses. This approach is consistent with our conservative risk management principles and desire to have no residual credit risk related to Advances and Letters of Credit.

**Internal Credit Ratings:** We perform credit underwriting of our members and nonmember institutions and assign them an internal credit rating. These credit ratings are based on internal and third-party ratings models, credit analyses and consideration of credit ratings from independent credit rating organizations. Credit ratings are used in conjunction with other measures of credit risk in managing secured credit risk exposure.

**Collateral:** We require each member to provide a security interest in eligible collateral before it can undertake any secured borrowing. Eligible loan collateral types include the following: single- and multi-family residential, home equity, commercial

real estate, government guaranteed and farm real estate. Eligible security types include those that are government or agency backed, highly-rated municipal securities, and highly-rated private-label residential and commercial mortgage-backed securities. We have conservative eligibility criteria within each of the above asset types. The estimated value of pledged collateral is discounted in order to offset market, credit, and liquidity risks that may affect the collateral's realizable value in the event it must be liquidated. At September 30, 2024, total eligible pledged collateral of \$522.7 billion resulted in total borrowing capacity of \$376.0 billion of which \$127.7 billion was used to support outstanding Advances and Letters of Credit. Borrowers often pledge collateral in excess of their collateral requirement to demonstrate access to liquidity and to have the ability to borrow additional amounts in the future. Over-collateralization by one member is not applied to another member.

**Borrowing Capacity/Lendable Value:** Lendable Value Rates (LVRs) represent the percent of collateral value net of the discount, or haircut, we apply for purposes of determining borrowing capacity. LVRs are derived using scenario analysis, statistical analysis and management assumptions relating to historical price volatility, inherent credit risks, liquidation costs, and the current credit and economic environment. We apply LVR results to the estimated values of pledged assets. LVRs vary among pledged assets and members based on the member institution type, the financial strength of the member institution, the form of valuation, lien position, the issuer of bond collateral or the quality of securitized assets, the quality of the loan collateral as reflected in the manner in which it was underwritten, and the marketability of the pledged assets.

**MPP**

**Overview:** The residual amount of credit risk exposure to loans in the MPP is minimal, based on the same factors described in the 2023 Annual Report on Form 10-K.

**Conventional Loan Portfolio Characteristics:** At September 30, 2024, the weighted average loan-to-value ratios for conventional loans based on origination values and estimated current values were 73 percent and 47 percent, respectively. The estimated weighted average current loan-to-value ratio at September 30, 2024 decreased one percent from the ratio at December 31, 2023 as overall home values have returned to normal growth rates.

**Credit Performance:** The table below provides an analysis of conventional loans delinquent or in the process of foreclosure, along with the national average serious delinquency rate.

(Dollars in millions)	Conventional Loan Delinquencies	
	September 30, 2024	December 31, 2023
Early stage delinquencies - unpaid principal balance <sup>(1)</sup>	\$ 34	\$ 32
Serious delinquencies - unpaid principal balance <sup>(2)</sup>	\$ 8	\$ 10
Early stage delinquency rate <sup>(3)</sup>	0.5 %	0.5 %
Serious delinquency rate <sup>(4)</sup>	0.1 %	0.1 %
National average serious delinquency rate <sup>(5)</sup>	1.0 %	1.1 %

- (1) Includes conventional loans 30 to 89 days delinquent and not in foreclosure.
- (2) Includes conventional loans that are 90 days or more past due or where the decision of foreclosure or a similar alternative such as pursuit of deed-in-lieu has been reported.
- (3) Early stage delinquencies expressed as a percentage of the total conventional loan portfolio.
- (4) Serious delinquencies expressed as a percentage of the total conventional loan portfolio.
- (5) National average number of fixed-rate prime and subprime conventional loans that are 90 days or more past due or in the process of foreclosure is based on the most recent national delinquency data available. The September 30, 2024 rate is based on June 30, 2024 data.

Overall, the MPP has experienced a minimal amount of delinquencies, with delinquency rates continuing to be well below national averages. This further supports our view that the portfolio is comprised of high-quality, well-performing loans.

**Credit Enhancements:** Conventional mortgage loans are primarily supported against credit losses by some combination of credit enhancements (primary mortgage insurance (PMI) and the Lender Risk Account (LRA)). The LRA is a hold back of a portion of the initial purchase price to cover potential credit losses. Starting after five years from the loan purchase date, we may return the hold back to Participating Financial Institutions (PFIs) if they manage credit risk to predefined acceptable levels of exposure on the pools of loans they sell to us. As a result, some pools of loans may have sufficient credit enhancements to recapture all losses while other pools of loans may not. The LRA had a balance of \$239 million at both September 30, 2024 and December 31, 2023, respectively. For more information, see Note 5 of the Notes to Unaudited Financial Statements.

**Credit Losses:** Residual credit risk exposure depends on the actual and potential credit performance of the loans in each pool compared to the pool's equity (on individual loans) and credit enhancements. Our available credit enhancements at September 30, 2024 were able to cover nearly all of the estimated gross credit losses. As a result, estimated credit losses at September 30, 2024 were less than \$1 million. Estimated credit losses, after credit enhancements, are accounted for in the allowance for credit losses or as a charge off (i.e., a reduction to the principal of mortgage loans held for portfolio).

Separate from our allowance for credit losses analysis, we regularly analyze potential adverse scenarios of lifetime credit risk exposure for the loans in the MPP. Even under severely adverse macroeconomic scenarios, we expect credit losses to remain low.

**Investments**

**Liquidity Investments:** We hold liquidity investments that can be converted to cash and may be unsecured, guaranteed or supported by the U.S. government, or secured (i.e., collateralized). For unsecured liquidity investments, we invest in the instruments of investment-grade rated institutions, have appropriate and conservative limits on dollar and maturity exposure to each institution, and have strong credit underwriting practices, including active monitoring of credit quality of our counterparties and of the environment in which they operate. In addition, we believe the portion of our liquidity investments for which the investments are secured with collateral (secured resale agreements) present no credit risk exposure to us. Liquidity investments generally fluctuate because of changes in the amount of actual Advances, anticipated demand for Advances, regulatory liquidity requirements, the availability of acceptable net spreads, and the number of eligible counterparties that meet our unsecured credit risk criteria.

The following table presents the carrying value of liquidity investments outstanding in relation to the counterparties' lowest long-term credit ratings provided by Standard & Poor's, Moody's, and/or Fitch Advisory Services. Our internal ratings of these investments may differ from those obtained from Standard & Poor's, Moody's, and/or Fitch Advisory Services. The ratings displayed in this table should not be taken as an indication of future ratings.

(In millions)

	September 30, 2024			
	Long-Term Rating			
	AA	A	Unrated	Total
<b><u>Unsecured Liquidity Investments</u></b>				
Interest-bearing deposits	\$ —	\$ 2,380	\$ —	\$ 2,380
Federal funds sold	4,365	3,435	—	7,800
Total unsecured liquidity investments	4,365	5,815	—	10,180
<b><u>Guaranteed/Secured Liquidity Investments</u></b>				
Securities purchased under agreements to resell	10	500	1,250	1,760
U.S. Treasury obligations	6,953	—	—	6,953
GSE obligations	1,638	—	—	1,638
Total guaranteed/secured liquidity investments	8,601	500	1,250	10,351
<b>Total liquidity investments</b>	<b>\$ 12,966</b>	<b>\$ 6,315</b>	<b>\$ 1,250</b>	<b>\$ 20,531</b>

Some counterparties used to transact our securities purchased under agreements to resell are not rated by an NRSRO because they are not issuers of debt or are otherwise not required to be rated by an NRSRO. However, each of the counterparties are considered to have the equivalent of at least an investment grade rating based on our internal ratings resulting from a fundamental credit analysis. Securities purchased under agreements to resell are secured by the following types of collateral: U.S. Treasury obligations, U.S. agency/GSE obligations, or U.S. agency/GSE MBS. At September 30, 2024, the collateral received had long-term credit ratings of AA, based on the lowest long-term credit ratings of the issuer as provided by Standard & Poor's, Moody's, and/or Fitch Advisory Services. The terms of our securities purchased under agreements to resell are structured such that if the fair value of the underlying securities decreases below the fair value required as collateral, the counterparty must place an equivalent amount of additional securities as collateral or remit an equivalent amount of cash. Additionally, these investments primarily mature overnight.

[Table of Contents](#)

The following table presents the lowest long-term credit ratings provided by Standard & Poor's, Moody's, and/or Fitch Advisory Services of our unsecured investment credit exposure by the domicile of the counterparty or the domicile of the counterparty's immediate parent for U.S. branches and agency offices of foreign commercial banks. Our internal ratings of these investments may differ from those obtained from Standard & Poor's, Moody's, and/or Fitch Advisory Services. The ratings displayed in this table should not be taken as an indication of future ratings.

Domicile of Counterparty	September 30, 2024		
	Counterparty Rating		Total
	AA	A	
Domestic	\$ —	\$ 2,730	\$ 2,730
U.S. branches and agency offices of foreign commercial banks:			
Canada	2,000	250	2,250
Germany	—	1,040	1,040
Norway	1,000	—	1,000
Netherlands	—	800	800
Finland	715	—	715
Australia	650	—	650
Sweden	—	500	500
France	—	395	395
United Kingdom	—	100	100
Total U.S. branches and agency offices of foreign commercial banks	4,365	3,085	7,450
Total unsecured investment credit exposure	\$ 4,365	\$ 5,815	\$ 10,180

We are prohibited by Finance Agency regulation from investing in financial instruments issued by non-U.S. entities. Furthermore, we restrict a significant portion of unsecured lending to overnight maturities, which further limits credit risk exposure.

**MBS:**

**GSE MBS**

At September 30, 2024, \$18.2 billion of MBS held were GSE securities issued by Fannie Mae and Freddie Mac, which provide credit safeguards by guaranteeing either timely or ultimate payments of principal and interest. We believe that the conservatorships of Fannie Mae and Freddie Mac lower the chance that they would not be able to fulfill their credit guarantees.

**MBS Issued by Other Government Agencies**

We also invest in MBS issued and guaranteed by Ginnie Mae. These investments totaled \$1.0 billion at September 30, 2024. We believe that the strength of Ginnie Mae's guarantee and backing by the full faith and credit of the U.S. government is sufficient to protect us against credit losses on these securities.

**Derivatives**

**Credit Risk Exposure:** We mitigate most of the credit risk exposure resulting from derivative transactions through collateralization or use of daily settled contracts. The table below presents the lowest long-term counterparty credit ratings provided by Standard & Poor's, Moody's, and/or Fitch Advisory Services for derivative positions to which we had credit risk exposure at September 30, 2024. The ratings displayed in this table should not be taken as an indication of future ratings.

(In millions)	Total Notional	Net Derivatives Fair Value Before Collateral	Cash Collateral Pledged to (from) Counterparties	Non-cash Collateral Pledged to (from) Counterparties	Net Credit Exposure to Counterparties
<b>Nonmember counterparties:</b>					
<u>Asset positions with credit exposure:</u>					
Uncleared derivatives:					
A-rated	\$ 70	\$ 1	\$ (1)	\$ —	\$ —
Total uncleared derivatives	70	1	(1)	—	—
Cleared derivatives <sup>(1)</sup>	50,500	72	63	853	988
<u>Liability positions with credit exposure:</u>					
Uncleared derivatives:					
BBB-rated	1,330	(5)	8	—	3
Total uncleared derivatives	1,330	(5)	8	—	3
Total derivative positions with credit exposure to nonmember counterparties	51,900	68	70	853	991
<b>Member institutions <sup>(2)</sup></b>	17	—	—	—	—
<b>Total</b>	<b>\$ 51,917</b>	<b>\$ 68</b>	<b>\$ 70</b>	<b>\$ 853</b>	<b>\$ 991</b>

(1) Represents derivative transactions cleared with LCH Ltd. and CME Clearing, the FHLB's clearinghouses. LCH Ltd. is rated AA- by Standard & Poor's, and CME Clearing is not rated, but its parent company, CME Group Inc., is rated AA- by Standard & Poor's and Fitch Ratings.

(2) Represents Mandatory Delivery Contracts.

Our net exposure to cleared derivatives is primarily associated with the requirement to post initial margin through the clearing agent to the Derivatives Clearing Organizations. We may pledge both cash and non-cash (i.e., securities) as collateral to satisfy this initial margin requirement. However, the use of cleared derivatives mitigates credit risk exposure because a central counterparty is substituted for individual counterparties.

Our net exposure to uncleared derivatives is managed to acceptable credit risk levels due to the contractual collateral provisions in these derivatives.

Although we cannot predict if we will realize credit risk losses from any of our derivatives counterparties, we believe that all of the counterparties will be able to continue making timely interest payments and satisfy the terms and conditions of their derivative contracts with us. As of September 30, 2024, we had a \$15 million notional amount of interest rate swaps with a subsidiary of our member, JPMorgan Chase Bank, N.A., which also had outstanding credit services with us. We had a de minimis amount of outstanding credit exposure to this counterparty related to interest rate swaps outstanding given the collateral exchanged.

**Liquidity Risk**

**Liquidity Overview**

We strive to be in a liquidity position at all times to meet the borrowing needs of our members and to meet all current and future financial commitments. This objective is achieved by managing liquidity positions to maintain stable, reliable, and cost-effective sources of funds while taking into account market conditions, member demand, and the maturity profile of assets and liabilities. At September 30, 2024, our liquidity position complied with the FHLBank Act, Finance Agency regulations, and internal policies.

The FHLBank System's primary source of funds is the sale of Consolidated Obligations in the capital markets. Our ability to obtain funds through the sale of Consolidated Obligations at acceptable interest costs depends on the financial market's perception of the riskiness of the Obligations and on prevailing conditions in the capital markets, particularly the short-term capital markets. The System's favorable debt ratings, which take into account our status as a GSE, and our effective risk management practices are instrumental in ensuring stable and satisfactory access to the capital markets.

We believe our liquidity position, as well as that of the System, continued to be strong during the first nine months of 2024. Our overall ability to effectively fund our operations through debt issuances remained sufficient. Investor demand for System debt was robust in the first nine months of 2024, as investors continued to prefer high-quality money market instruments. We believe there is a low probability of a liquidity or funding crisis in the System that would impair our ability to participate, on a cost-effective basis, in issuances of debt, service outstanding debt, maintain adequate capitalization, or pay competitive dividends.

The System works collectively to manage and monitor the System-wide liquidity and funding risks. Liquidity risk includes the risk that the System could have difficulty rolling over short-term Obligations when market conditions change, also called refinancing risk. The System has a large reliance on short-term funding; therefore, it has a sharp focus on managing liquidity risk to very low levels. As shown on the unaudited Statements of Cash Flows, in the first nine months of 2024, our portion of the System's debt issuances totaled \$81.7 billion for Discount Notes and \$92.2 billion for Bonds. Access to short-term debt markets has been reliable because investors, driven by liquidity preferences and risk aversion, have sought the System's short-term debt, which has resulted in strong demand for debt maturing in one year or less.

See the Notes to Unaudited Financial Statements for more detailed information regarding maturities of certain financial assets and liabilities which are instrumental in determining the amount of liquidity risk. In addition to contractual maturities, other assumptions regarding cash flows such as estimated prepayments, embedded call optionality, and scheduled amortization are considered when managing liquidity risks.

### **Liquidity Management and Regulatory Requirements**

We manage liquidity risk by ensuring compliance with our regulatory liquidity requirements and regularly monitoring other metrics.

The Finance Agency establishes the expectations with respect to the maintenance of sufficient liquidity without access to the capital markets for a specified number of days, which was set as a period of between 10 to 30 calendar days in the base case. Under these expectations, all Advance maturities are assumed to renew, unless the Advances relate to former members who are ineligible to borrow new Advances. The maintenance of sufficient liquidity each day is intended to provide additional assurance that we can continue to provide Advances and Letters of Credit to members over an extended period without access to the capital markets. We were in compliance with these liquidity requirements at all times during the first nine months of 2024.

The Finance Agency also provides guidance related to asset/liability maturity funding gap limits. Funding gap metrics measure the difference between assets and liabilities that are scheduled to mature during a specified period of time and are expressed as a percentage of total assets. Although subject to change depending on conditions in the financial markets, the current regulatory requirement for funding gaps is between -10 percent to -20 percent for the three-month maturity horizon and is between -25 percent to -35 percent for the one-year maturity horizon. During the nine months ended September 30, 2024, we operated within those limits.

To support our member deposits, we also must meet a statutory deposit reserve requirement. The sum of our investments in obligations of the United States, deposits in eligible banks or trust companies, and Advances with a final maturity not exceeding five years must equal or exceed the current amount of member deposits. The following table presents the components of this liquidity requirement.

(In millions)	September 30, 2024	December 31, 2023
<u>Deposit Reserve Requirement</u>		
Total Eligible Deposit Reserves	\$ 96,183	\$ 88,988
Total Member Deposits	(1,189)	(1,120)
Excess Deposit Reserves	<u>\$ 94,994</u>	<u>\$ 87,868</u>

## Member Concentration Risk

We regularly assess concentration risks from business activity. We believe the effect on credit risk exposure from borrower concentration is minimal because of our application of credit risk mitigations, specifically credit underwriting of our members and the over-collateralization of borrowings. Advance concentration has a minimal effect on market risk exposure because Advances are largely funded by Consolidated Obligations and interest rate swaps that have similar interest rate characteristics. Furthermore, additional increases in Advance concentration would not materially affect capital adequacy because Advance growth is supported by new purchases of capital stock as required by the Capital Plan.

## Operational Risks

There were no material developments regarding our operational risk exposure during the first nine months of 2024.

## CRITICAL ACCOUNTING ESTIMATES

There have been no material changes in the first nine months of 2024 to our critical accounting estimates. Our critical accounting estimates are described in detail in our 2023 Annual Report on Form 10-K.

### Item 3. Quantitative and Qualitative Disclosures About Market Risk.

Information required by this Item is set forth under the caption “Quantitative and Qualitative Disclosures About Risk Management” in Part I, Item 2, of this Report.

### Item 4. Controls and Procedures.

## DISCLOSURE CONTROLS AND PROCEDURES

The FHLB's management, including its principal executive officer and principal financial officer, evaluate the effectiveness of the FHLB's disclosure controls and procedures as defined in Rule 13a-15(e) under the Securities Exchange Act of 1934 (the “Exchange Act”). Based upon that evaluation, these two officers each concluded that, as of September 30, 2024, the FHLB maintained effective disclosure controls and procedures designed to ensure that information required to be disclosed in the reports that it files under the Exchange Act is (1) accumulated and communicated to management as appropriate to allow timely decisions regarding disclosure and (2) recorded, processed, summarized and reported within the time periods specified in the rules and forms of the Securities and Exchange Commission.

## CHANGES IN INTERNAL CONTROL OVER FINANCIAL REPORTING

The FHLB's management, including its principal executive officer and principal financial officer, evaluate the FHLB's internal control over financial reporting. Based upon that evaluation, these two officers each concluded that there were no changes in the FHLB's internal control over financial reporting that occurred during the quarter ended September 30, 2024 that materially affected, or are reasonably likely to materially affect, the FHLB's internal control over financial reporting.

## **PART II - OTHER INFORMATION**

### **Item 1. Legal Proceedings.**

Information regarding legal proceedings is set forth in Note 13 - Commitments and Contingencies in Part I, Item 1, of this Report.

### **Item 1A. Risk Factors.**

For a discussion of our risk factors, see Part I, Item 1A. "Risk Factors" in our 2023 Annual Report on Form 10-K. There have been no material changes from the risk factors in our 2023 Annual Report on Form 10-K.

### **Item 2. Unregistered Sales of Equity Securities and Use of Proceeds.**

None.

### **Item 3. Defaults Upon Senior Securities.**

None.

### **Item 4. Mine Safety Disclosures.**

Not applicable.

### **Item 5. Other Information.**

None.

**Item 6. Exhibits.**

<u>Exhibit Number <sup>(1)</sup></u>	<u>Description of exhibit</u>	<u>Document filed or furnished, as indicated below</u>
<a href="#">31.1</a>	<a href="#">Rule 13a-14(a)/15d-14(a) Certification of Principal Executive Officer</a>	Filed Herewith
<a href="#">31.2</a>	<a href="#">Rule 13a-14(a)/15d-14(a) Certification of Principal Financial Officer</a>	Filed Herewith
<a href="#">32</a>	<a href="#">Section 1350 Certifications</a>	Furnished Herewith
101.INS	XBRL Instance Document	The instance document does not appear in the interactive data file because its XBRL tags are embedded within the inline XBRL document
101.SCH	XBRL Taxonomy Extension Schema Document	Filed Herewith
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document	Filed Herewith
101.LAB	XBRL Taxonomy Extension Label Linkbase Document	Filed Herewith
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document	Filed Herewith
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document	Filed Herewith
104	Cover Page Interactive Data File (formatted as inline XBRL and contained in Exhibit 101)	Filed Herewith

(1) Numbers coincide with Item 601 of Regulation S-K.

