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 March 31, 2021

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	**31-6000228**
(State or other jurisdiction of incorporation or organization)	*(I.R.S. Employer Identification No.)*
600 Atrium Two, P.O. Box 598,	
Cincinnati, OH	**45201-0598**
(Address of principal executive offices)	*(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 April 30, 2021, the registrant had 30,264,135 shares of capital stock outstanding, which included stock classified as mandatorily redeemable.

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PART I – FINANCIAL INFORMATION

Item 1. Financial Statements.

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

(In thousands, except par value)

	March 31, 2021	December 31, 2020
ASSETS		
Cash and due from banks	$ 3,113,972	$ 2,984,073
Interest-bearing deposits	340,252	555,104
Securities purchased under agreements to resell	288,300	1,818,268
Federal funds sold	4,805,000	4,240,000
Investment securities:		
Trading securities	9,585,217	10,488,124
Available-for-sale securities (amortized cost of $271,072 and $286,869 at March 31, 2021 and December 31, 2020, respectively)	278,477	291,587
Held-to-maturity securities (includes $0 and $0 pledged as collateral at March 31, 2021 and December 31, 2020, respectively, that may be repledged) [(a)]	8,911,352	9,648,171
Total investment securities	18,775,046	20,427,882
Advances (includes $25,902 and $27,202 at fair value under fair value option at March 31, 2021 and December 31, 2020, respectively)	24,365,438	25,362,003
Mortgage loans held for portfolio, net of allowance for credit losses of $248 and $248 at March 31, 2021 and December 31, 2020, respectively	8,598,461	9,548,506
Accrued interest receivable	122,676	113,701
Derivative assets	197,213	215,888
Other assets, net	27,493	30,814
TOTAL ASSETS	$ 60,633,851	$ 65,296,239
LIABILITIES		
Deposits	$ 1,402,489	$ 1,327,202
Consolidated Obligations:		
Discount Notes (includes $1,019,989 and $0 at fair value under fair value option at March 31, 2021 and December 31, 2020, respectively)	26,872,494	27,500,244
Bonds (includes $448,843 and $2,262,388 at fair value under fair value option at March 31, 2021 and December 31, 2020, respectively)	27,798,441	31,996,311
Total Consolidated Obligations	54,670,935	59,496,555
Mandatorily redeemable capital stock	15,330	19,454
Accrued interest payable	67,314	77,521
Affordable Housing Program payable	108,242	110,772
Derivative liabilities	973	3,813
Other liabilities	323,380	331,008
Total liabilities	56,588,663	61,366,325
Commitments and contingencies		
CAPITAL		
Capital stock Class B putable ($100 par value); issued and outstanding shares: 27,479 shares at March 31, 2021 and 26,409 shares at December 31, 2020	2,747,938	2,640,863
Retained earnings:		
Unrestricted	803,806	802,715
Restricted	505,066	501,321
Total retained earnings	1,308,872	1,304,036
Accumulated other comprehensive loss	(11,622)	(14,985)
Total capital	4,045,188	3,929,914
TOTAL LIABILITIES AND CAPITAL	$ 60,633,851	$ 65,296,239

(a) Fair values: $9,029,550 and $9,792,136 at March 31, 2021 and December 31, 2020, respectively.

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 March 31, 2021	Three Months Ended March 31, 2020
INTEREST INCOME:		
Advances	$ 41,160	$ 172,167
Prepayment fees on Advances, net	1,340	4,274
Interest-bearing deposits	217	3,350
Securities purchased under agreements to resell	214	10,154
Federal funds sold	1,342	28,526
Investment securities:		
Trading securities	58,052	67,904
Available-for-sale securities	1,335	3,396
Held-to-maturity securities	29,731	68,304
Total investment securities	89,118	139,604
Mortgage loans held for portfolio	44,414	89,257
Loans to other FHLBanks	—	60
Total interest income	177,805	447,392
INTEREST EXPENSE:		
Consolidated Obligations:		
Discount Notes	5,468	176,124
Bonds	96,186	185,987
Total Consolidated Obligations	101,654	362,111
Deposits	151	2,976
Mandatorily redeemable capital stock	94	190
Total interest expense	101,899	365,277
NET INTEREST INCOME	75,906	82,115
NON-INTEREST INCOME (LOSS):		
Net gains (losses) on investment securities	(138,860)	372,406
Net gains (losses) on financial instruments held under fair value option	3,905	(50,830)
Net gains (losses) on derivatives and hedging activities	97,144	(293,966)
Standby Letters of Credit fees	5,811	2,470
Other, net	435	609
Total non-interest income (loss)	(31,565)	30,689
NON-INTEREST EXPENSE:		
Compensation and benefits	12,903	13,340
Other operating expenses	5,952	6,103
Finance Agency	1,879	1,628
Office of Finance	1,271	1,258
Other	1,518	1,951
Total non-interest expense	23,523	24,280
INCOME BEFORE ASSESSMENTS	20,818	88,524
Affordable Housing Program assessments	2,091	8,871
NET INCOME	$ 18,727	$ 79,653

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

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

(In thousands)	Three Months Ended March 31,	
	2021	2020
Net income	$ 18,727	$ 79,653
Other comprehensive income adjustments:		
Net unrealized gains (losses) on available-for-sale securities	2,687	(905)
Pension and postretirement benefits	676	563
Total other comprehensive income (loss) adjustments	3,363	(342)
Comprehensive income	$ 22,090	$ 79,311

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	Total
	Shares	Par Value	Unrestricted	Restricted	Total	Loss	Capital
BALANCE, DECEMBER 31, 2019	33,664	$3,366,428	$ 648,374	$ 446,048	$ 1,094,422	$ (16,394)	$4,444,456
Adjustment for cumulative effect of accounting change			366		366		366
Comprehensive income (loss)			63,722	15,931	79,653	(342)	79,311
Proceeds from sale of capital stock	20,729	2,072,862					2,072,862
Repurchase of capital stock	(1,500)	(150,000)					(150,000)
Net shares reclassified to mandatorily redeemable capital stock	(5,499)	(549,877)					(549,877)
Cash dividends on capital stock			(21,847)		(21,847)		(21,847)
BALANCE, MARCH 31, 2020	47,394	$4,739,413	$ 690,615	$ 461,979	$ 1,152,594	$ (16,736)	$5,875,271
BALANCE, DECEMBER 31, 2020	26,409	$2,640,863	$ 802,715	$ 501,321	$ 1,304,036	$ (14,985)	$3,929,914
Comprehensive income (loss)			14,982	3,745	18,727	3,363	22,090
Proceeds from sale of capital stock	3,760	376,078					376,078
Repurchase of capital stock	(2,680)	(268,000)					(268,000)
Net shares reclassified to mandatorily redeemable capital stock	(10)	(1,003)					(1,003)
Cash dividends on capital stock			(13,891)		(13,891)		(13,891)
BALANCE, MARCH 31, 2021	27,479	$2,747,938	$ 803,806	$ 505,066	$ 1,308,872	$ (11,622)	$4,045,188

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

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

(In thousands)	Three Months Ended March 31,	
	2021	2020
OPERATING ACTIVITIES:		
Net income	$ 18,727	$ 79,653
Adjustments to reconcile net income to net cash provided by (used in) operating activities:		
Depreciation and amortization	20,233	29,025
Net change in derivative and hedging activities	90,177	(204,187)
Net change in fair value adjustments on trading securities	138,860	(372,406)
Net change in fair value adjustments on financial instruments held under fair value option	(3,905)	50,830
Other adjustments, net	223	177
Net change in:		
Accrued interest receivable	(8,968)	(15,359)
Other assets	2,746	3,741
Accrued interest payable	(18,542)	(28,574)
Other liabilities	(9,436)	6,632
Total adjustments	211,388	(530,121)
Net cash provided by (used in) operating activities	230,115	(450,468)
INVESTING ACTIVITIES:		
Net change in:		
Interest-bearing deposits	300,462	(496,833)
Securities purchased under agreements to resell	1,529,968	2,165,080
Federal funds sold	(565,000)	4,833,000
Premises, software, and equipment	(252)	(263)
Trading securities:		
Proceeds from maturities	750,038	27
Proceeds from sale	14,008	—
Available-for-sale securities:		
Proceeds from maturities	—	1,810,000
Purchases	—	(400,000)
Held-to-maturity securities:		
Proceeds from maturities	777,871	958,486
Purchases	(40,483)	(34,234)
Advances:		
Repaid	49,540,950	256,213,831
Originated	(48,690,088)	(288,877,977)
Mortgage loans held for portfolio:		
Principal collected	1,165,828	539,328
Purchases	(247,646)	(1,231,879)
Net cash provided by (used in) investing activities	4,535,656	(24,521,434)

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)

(In thousands)	Three Months Ended March 31,	
	2021	2020
FINANCING ACTIVITIES:		
Net change in deposits and pass-through reserves	$ 76,707	$ 233,060
Net proceeds (payments) on derivative contracts with financing elements	—	(303)
Net proceeds from issuance of Consolidated Obligations:		
Discount Notes	48,587,907	150,972,042
Bonds	9,575,470	9,381,318
Payments for maturing and retiring Consolidated Obligations:		
Discount Notes	(49,208,016)	(120,420,948)
Bonds	(13,757,000)	(13,191,000)
Proceeds from issuance of capital stock	376,078	2,072,862
Payments for repurchase of capital stock	(268,000)	(150,000)
Payments for repurchase/redemption of mandatorily redeemable capital stock	(5,127)	—
Cash dividends paid	(13,891)	(21,847)
Net cash provided by (used in) financing activities	(4,635,872)	28,875,184
Net increase (decrease) in cash and due from banks	129,899	3,903,282
Cash and due from banks at beginning of the period	2,984,073	20,608
Cash and due from banks at end of the period	$ 3,113,972	$ 3,923,890
Supplemental Disclosures:		
Interest paid	$ 123,211	$ 388,791
Affordable Housing Program payments, net	$ 4,621	$ 6,046

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 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).

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 statement 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, 2020 filed with the Securities and Exchange Commission (SEC). Results for the three months ended March 31, 2021 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 2020 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

Facilitation of the Effects of Reference Rate Reform on Financial Reporting, as amended. On March 12, 2020, the Financial Accounting Standards Board (FASB) issued temporary, optional guidance to ease the potential burden in accounting for reference rate reform. The new guidance provides optional expedients and exceptions for applying GAAP to transactions affected by reference rate reform if certain criteria are met. The transactions primarily include (1) contract modifications, (2) hedging relationships, and (3) sale and/or transfer of debt securities classified as held-to-maturity. This guidance became effective immediately for the FHLB, and the amendments may be applied prospectively through December 31, 2022. The FHLB either elected or plans to elect the majority of the optional expedients and exceptions provided; however, the full effect on the FHLB's financial condition, results of operations and cash flows has not yet been determined. In particular, during the

fourth quarter of 2020, the FHLB elected optional practical expedients specific to the discounting transition on a retrospective basis, which did not have a material effect.

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 short-term liquidity. These investments are transacted with counterparties that have received a credit rating of single-A or greater by a nationally recognized statistical rating organization (NRSRO). The FHLB’s internal ratings of these counterparties may differ from those issued by an NRSRO.

Federal funds sold are unsecured loans that are generally transacted on an overnight term. Finance Agency regulations include a limit on the amount of unsecured credit the FHLB may extend to a counterparty. At March 31, 2021 and December 31, 2020, all investments in interest-bearing deposits and Federal funds sold were repaid or expected to be repaid according to the contractual terms. No allowance for credit losses was recorded for these assets at March 31, 2021 and December 31, 2020. Carrying values of interest-bearing deposits and Federal funds sold exclude accrued interest receivable of (in thousands) $64 and $8 as of March 31, 2021, and $72 and $10 as of December 31, 2020.

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 March 31, 2021 and December 31, 2020. The carrying value of securities purchased under agreements to resell excludes accrued interest receivable of (in thousands) $8 and $13 as of March 31, 2021 and December 31, 2020.

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 and instruments that experienced credit deterioration after their purchase by the FHLB.

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Trading Securities

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

Fair Value	March 31, 2021	December 31, 2020
Non-mortgage-backed securities (non-MBS):		
U.S. Treasury obligations	$ 7,573,745	$ 8,362,211
GSE obligations	2,011,179	2,125,580
Total non-MBS	9,584,924	10,487,791
Mortgage-backed securities (MBS):		
U.S. obligation single-family MBS	293	333
Total	$ 9,585,217	$ 10,488,124

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

	Three Months Ended March 31,	
	2021	2020
Net unrealized gains (losses) on trading securities held at period end	$ (135,239)	$ 372,406
Net gains (losses) on trading securities sold/matured during the period	(3,621)	—
Net gains (losses) on trading securities	$ (138,860)	$ 372,406

Available-for-Sale Securities

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

	March 31, 2021			
	Amortized Cost [(1)]	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Non-MBS:				
GSE obligations	$ 134,518	$ 2,726	$ —	$ 137,244
Total non-MBS	134,518	2,726	—	137,244
MBS:				
GSE multi-family MBS	136,554	4,679	—	141,233
Total MBS	136,554	4,679	—	141,233
Total	$ 271,072	$ 7,405	$ —	$ 278,477

	December 31, 2020			
	Amortized Cost [(1)]	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Non-MBS:				
GSE obligations	$ 140,600	$ 1,802	$ —	$ 142,402
Total non-MBS	140,600	1,802	—	142,402
MBS:				
GSE multi-family MBS	146,269	2,916	—	149,185
Total MBS	146,269	2,916	—	149,185
Total	$ 286,869	$ 4,718	$ —	$ 291,587

(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) $652 and $1,242 at March 31, 2021 and December 31, 2020.

All securities outstanding at March 31, 2021 and December 31, 2020 had gross unrealized gains.

Table 3.4 - Available-for-Sale Securities by Contractual Maturity (in thousands)

Year of Maturity	March 31, 2021 Amortized Cost	March 31, 2021 Fair Value	December 31, 2020 Amortized Cost	December 31, 2020 Fair Value
Non-MBS:				
Due in 1 year or less	$ —	$ —	$ —	$ —
Due after 1 year through 5 years	82,893	84,158	11,248	11,309
Due after 5 years through 10 years	39,560	40,433	116,096	117,507
Due after 10 years	12,065	12,653	13,256	13,586
Total non-MBS	134,518	137,244	140,600	142,402
MBS [(1)]	136,554	141,233	146,269	149,185
Total	$ 271,072	$ 278,477	$ 286,869	$ 291,587

(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 3.5 - Interest Rate Payment Terms of Available-for-Sale Securities (in thousands)

	March 31, 2021	December 31, 2020
Amortized cost of non-MBS:		
Fixed-rate	$ 134,518	$ 140,600
Total amortized cost of non-MBS	134,518	140,600
Amortized cost of MBS:		
Fixed-rate	136,554	146,269
Total amortized cost of MBS	136,554	146,269
Total	$ 271,072	$ 286,869

The FHLB had no sales of securities out of its available-for-sale portfolio for the three months ended March 31, 2021 or 2020.

Held-to-Maturity Securities

Table 3.6 - Held-to-Maturity Securities by Major Security Types (in thousands)

	March 31, 2021			
	Amortized Cost [(1)]	Gross Unrecognized Holding Gains	Gross Unrecognized Holding Losses	Fair Value
Non-MBS:				
U.S. Treasury obligations	$ 40,490	$ 7	$ —	$ 40,497
Total non-MBS	40,490	7	—	40,497
MBS:				
U.S. obligation single-family MBS	877,941	28,596	—	906,537
GSE single-family MBS	2,643,473	88,668	—	2,732,141
GSE multi-family MBS	5,349,448	6,186	(5,259)	5,350,375
Total MBS	8,870,862	123,450	(5,259)	8,989,053
Total	$ 8,911,352	$ 123,457	$ (5,259)	$ 9,029,550

	December 31, 2020			
	Amortized Cost [(1)]	Gross Unrecognized Holding Gains	Gross Unrecognized Holding Losses	Fair Value
Non-MBS:				
U.S. Treasury obligations	$ 41,398	$ 1	$ —	$ 41,399
Total non-MBS	41,398	1	—	41,399
MBS:				
U.S. obligation single-family MBS	986,399	41,218	—	1,027,617
GSE single-family MBS	3,013,326	105,657	(2)	3,118,981
GSE multi-family MBS	5,607,048	5,146	(8,055)	5,604,139
Total MBS	9,606,773	152,021	(8,057)	9,750,737
Total	$ 9,648,171	$ 152,022	$ (8,057)	$ 9,792,136

(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) $8,532 and $9,609 as of March 31, 2021 and December 31, 2020.

Table 3.7 - Net Purchased Premiums Included in the Amortized Cost of MBS Classified as Held-to-Maturity (in thousands)

	March 31, 2021	December 31, 2020
Premiums	$ 18,821	$ 18,299
Discounts	(7,222)	(7,269)
Net purchased premiums	$ 11,599	$ 11,030

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

Year of Maturity	March 31, 2021 Amortized Cost (1)	March 31, 2021 Fair Value	December 31, 2020 Amortized Cost (1)	December 31, 2020 Fair Value
Non-MBS:				
Due in 1 year or less	$ 40,490	$ 40,497	$ 41,398	$ 41,399
Due after 1 year through 5 years	—	—	—	—
Due after 5 years through 10 years	—	—	—	—
Due after 10 years	—	—	—	—
Total non-MBS	40,490	40,497	41,398	41,399
MBS (2)	8,870,862	8,989,053	9,606,773	9,750,737
Total	$ 8,911,352	$ 9,029,550	$ 9,648,171	$ 9,792,136

(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)

	March 31, 2021	December 31, 2020
Amortized cost of non-MBS:		
Fixed-rate	$ 40,490	$ 41,398
Total amortized cost of non-MBS	40,490	41,398
Amortized cost of MBS:		
Fixed-rate	3,237,301	3,677,199
Variable-rate	5,633,561	5,929,574
Total amortized cost of MBS	8,870,862	9,606,773
Total	$ 8,911,352	$ 9,648,171

From time to time the FHLB may sell securities out of its held-to-maturity portfolio. These securities, generally, have less than 15 percent of the acquired principal outstanding at the time of the sale. These sales are considered maturities for the purposes of security classification. For the three months ended March 31, 2021 and 2020, 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 March 31, 2021 and December 31, 2020, 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 used 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 March 31, 2021 and December 31, 2020, no available-for-sale securities were in an unrealized loss position. As a result, no allowance for credit losses was recorded on these available-for-sale securities at March 31, 2021 and December 31, 2020.

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 March 31, 2021 and December 31, 2020, 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 default on the instruments, and (3) in the case of U.S., GSE, or other agency obligations, carry an implicit or explicit government guarantee such that the FHLB considered the risk of nonpayment to be zero.

Note 4 - Advances

The FHLB offers a wide range of fixed- and variable-rate Advance products with different maturities, interest rates, payment characteristics and optionality. 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)

	March 31, 2021		December 31, 2020	
Redemption Term	Amount	Weighted Average Interest Rate	Amount	Weighted Average Interest Rate
Due in 1 year or less	$ 11,768,921	0.76 %	$ 12,064,753	0.75 %
Due after 1 year through 2 years	1,757,161	1.66	1,986,446	1.88
Due after 2 years through 3 years	1,904,266	2.29	1,445,139	2.15
Due after 3 years through 4 years	1,542,056	1.66	1,809,523	1.97
Due after 4 years through 5 years	3,400,359	0.82	2,361,604	1.02
Thereafter	3,783,772	1.55	5,339,932	1.34
Total principal amount	24,156,535	1.14	25,007,397	1.16
Commitment fees	(163)		(170)	
Discount on Affordable Housing Program (AHP) Advances	(1,888)		(2,053)	
Discounts	(1,812)		(2,046)	
Hedging adjustments	213,364		358,173	
Fair value option valuation adjustments and accrued interest	(598)		702	
Total [(1)]	$ 24,365,438		$ 25,362,003	

(1) Carrying values exclude accrued interest receivable of (in thousands) $23,872 and $26,426 as of March 31, 2021 and December 31, 2020.

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). If the call option is exercised, replacement funding may be available to members. 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)

Redemption Term or Next Call Date	March 31, 2021	December 31, 2020
Due in 1 year or less	$ 15,094,822	$ 15,375,354
Due after 1 year through 2 years	1,464,941	1,716,058
Due after 2 years through 3 years	1,878,036	1,434,377
Due after 3 years through 4 years	1,539,205	1,785,672
Due after 4 years through 5 years	417,259	877,504
Thereafter	3,762,272	3,818,432
Total principal amount	$ 24,156,535	$ 25,007,397

The FHLB also offers putable Advances. With a putable 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)

Redemption Term or Next Put Date	March 31, 2021	December 31, 2020
Due in 1 year or less	$ 14,206,171	$ 14,407,003
Due after 1 year through 2 years	1,882,161	2,146,446
Due after 2 years through 3 years	1,884,266	1,485,139
Due after 3 years through 4 years	1,572,806	1,855,273
Due after 4 years through 5 years	3,400,359	2,346,604
Thereafter	1,210,772	2,766,932
Total principal amount	$ 24,156,535	$ 25,007,397

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

	March 31, 2021	December 31, 2020
Total fixed-rate (1)	$ 18,589,559	$ 19,195,790
Total variable-rate (1)	5,566,976	5,811,607
Total principal amount	$ 24,156,535	$ 25,007,397

(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's Advances are made to member financial institutions. 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. Collateral eligible to secure new or renewed Advances includes:

- one-to-four family and multi-family mortgage loans (delinquent for no more than 90 days) and securities representing such mortgages;
- loans and securities issued, 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 and that 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” of the impact of poorly performing assets on the member’s capital and loss reserve positions. Depending on the results of these tests and the level of over-collateralization, 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.

Using a risk-based approach, the FHLB considers the payment status, collateralization levels, and borrower's financial condition to be indicators of credit quality for its credit products. At March 31, 2021 and December 31, 2020, the FHLB did not have any Advances that were past due, in non-accrual status or considered impaired. In addition, there were no troubled debt restructurings related to Advances of the FHLB during the three months ended March 31, 2021 or 2020. At March 31, 2021 and December 31, 2020, 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 March 31, 2021 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, 2020.

Advance Concentrations

The FHLB's Advances are concentrated in commercial banks, savings institutions, and insurance companies. Advance borrower concentrations can change significantly due to members' ability to quickly increase or decrease their amount of Advances based on their current funding needs.

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)

March 31, 2021			December 31, 2020		
	Principal	% of Total Principal Amount of Advances		Principal	% of Total Principal Amount of Advances
U.S. Bank, N.A.	$ 4,273	18 %	U.S. Bank, N.A.	$ 4,273	17 %
Third Federal Savings and Loan Association	3,292	14	Third Federal Savings and Loan Association	3,443	14
Protective Life Insurance Company	2,285	9	Nationwide Life Insurance Company	2,062	8
Nationwide Life Insurance Company	2,036	8	Protective Life Insurance Company	1,955	8
Western-Southern Life Assurance Co.	1,477	6	Western-Southern Life Assurance Co.	1,344	5
Total	$ 13,363	55 %	Total	$ 13,077	52 %

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. The FHLB plans to retain its existing portfolio of mortgage loans.

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

	March 31, 2021	December 31, 2020
Fixed rate medium-term single-family mortgage loans [1]	$ 710,566	$ 731,756
Fixed rate long-term single-family mortgage loans	7,680,137	8,584,239
Total unpaid principal balance	8,390,703	9,315,995
Premiums	188,611	208,281
Discounts	(1,497)	(1,636)
Hedging basis adjustments [2]	20,892	26,114
Total mortgage loans held for portfolio [3]	8,598,709	9,548,754
Allowance for credit losses on mortgage loans	(248)	(248)
Mortgage loans held for portfolio, net	$ 8,598,461	$ 9,548,506

(1) Medium-term is defined as a term of 15 years or less.
(2) 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.
(3) Excludes accrued interest receivable of (in thousands) $27,152 and $30,109 at March 31, 2021 and December 31, 2020.

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

	March 31, 2021	December 31, 2020
Conventional mortgage loans	$ 8,219,067	$ 9,133,942
Federal Housing Administration (FHA) mortgage loans	171,636	182,053
Total unpaid principal balance	$ 8,390,703	$ 9,315,995

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)

	March 31, 2021			December 31, 2020	
	Principal	% of Total		Principal	% of Total
Union Savings Bank	$ 2,384	28 %	Union Savings Bank	$ 2,826	30 %
Guardian Savings Bank FSB	695	8	Guardian Savings Bank FSB	796	9

Credit Risk Exposure

The FHLB manages credit risk exposure for conventional mortgage loans primarily though 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 supported by some combination of credit enhancements (primary mortgage insurance (PMI), supplemental mortgage insurance (SMI) 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. Beginning in February 2011, the FHLB discontinued the use of SMI for all new loan purchases and replaced it with expanded use of the LRA. The LRA is funded by the FHLB upfront as a portion of the purchase proceeds. The LRA is recorded in other liabilities in the Statement 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. The LRA established for a pool of loans is limited to only covering losses of that specific pool of loans. 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)

	Three Months Ended March 31, 2021
LRA at beginning of year	$ 246,435
Additions	2,971
Claims	(3)
Scheduled distributions	(1,952)
LRA at end of period	$ 247,451

Mortgage Loans Forbearance Plans. In response to the COVID-19 pandemic, which has caused economic strain on many home loan borrowers, the FHLB's mortgage loan servicers may grant a forbearance period to borrowers who have had COVID-19 related hardships regardless of the payment status of the loan at the time of the request. Based on the most recent information received from mortgage servicers, as of March 31, 2021, there was approximately (in thousands) $57,899 in unpaid principal balance of conventional mortgage loans under a forbearance plan as a result of COVID-19, which represented one percent of conventional mortgage loans held for portfolio.

Payment Status of Mortgage Loans. The key credit quality indicator for conventional mortgage loans is payment status, which allows the FHLB to monitor the migration of past due loans. 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. Although certain loans have been granted a forbearance period as noted above, there has been no change in the terms of the loan. Accordingly, when a borrower fails to make timely payments of principal and/or interest for loans under forbearance, they are considered past due. Table 5.5 presents the payment status of conventional mortgage loans. As of March 31, 2021, (in thousands) $7,872 in unpaid principal balance of conventional loans under forbearance had a current payment status, (in thousands) $3,880 was 30 to 59 days past due, (in thousands) $5,003 was 60 to 89 days past due, and (in thousands) $41,144 was greater than 90 days past due.

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

	March 31, 2021		
	Origination Year		
Payment status, at amortized cost:	Prior to 2017	2017 to March 31, 2021	Total
Past due 30-59 days	$ 19,950	$ 15,306	$ 35,256
Past due 60-89 days	6,432	3,840	10,272
Past due 90 days or more	27,313	30,436	57,749
Total past due mortgage loans	53,695	49,582	103,277
Current mortgage loans	3,565,220	4,757,177	8,322,397
Total conventional mortgage loans	$ 3,618,915	$ 4,806,759	$ 8,425,674

	December 31, 2020		
	Origination Year		
Payment status, at amortized cost:	Prior to 2016	2016 to 2020	Total
Past due 30-59 days delinquent	$ 16,812	$ 19,036	$ 35,848
Past due 60-89 days delinquent	7,245	7,553	14,798
Past due 90 days or more delinquent	24,651	39,921	64,572
Total past due	48,708	66,510	115,218
Total current mortgage loans	2,555,139	6,694,837	9,249,976
Total mortgage loans	$ 2,603,847	$ 6,761,347	$ 9,365,194

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)

	March 31, 2021		
Amortized Cost:	Conventional MPP Loans	FHA Loans	Total
In process of foreclosure [1]	$ 5,449	$ 546	$ 5,995
Serious delinquency rate [2]	0.69 %	2.98 %	0.73 %
Past due 90 days or more still accruing interest [3]	$ 52,285	$ 5,153	$ 57,438
Loans on non-accrual status	$ 6,482	$ —	$ 6,482

	December 31, 2020		
Amortized Cost:	Conventional MPP Loans	FHA Loans	Total
In process of foreclosure [1]	$ 5,031	$ 617	$ 5,648
Serious delinquency rate [2]	0.69 %	3.28 %	0.74 %
Past due 90 days or more still accruing interest [3]	$ 58,881	$ 5,961	$ 64,842
Loans on non-accrual status	$ 6,721	$ —	$ 6,721

(1) Includes loans where the decision of foreclosure or a similar alternative such as pursuit of deed-in-lieu has been reported. During the three months ended March 31, 2021 and year ended December 31, 2020, there were foreclosure moratoriums enacted in response to the COVID-19 pandemic.

(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.

The FHLB did not have any real estate owned at March 31, 2021 or December 31, 2020.

Evaluation of Current Expected Credit Losses

Mortgage Loans - FHA. The FHLB invests in fixed-rate mortgage loans secured by one-to-four family residential properties insured by the FHA. The FHLB expects to recover any losses from such loans from the FHA. Any losses from these loans that are not recovered from the FHA would be due to a claim rejection by the FHA and, as such, would be recoverable from the selling participating financial institutions. Therefore, the FHLB only has credit risk for these loans if the seller or servicer fails to pay for losses not covered by the FHA insurance. As a result, the FHLB did not record an allowance for credit losses on its FHA insured mortgage loans. Furthermore, due to the insurance, none of these mortgage loans have been placed on non-accrual status.

Mortgage Loans - Conventional MPP. Conventional loans are evaluated collectively when similar risk characteristics exist; loans that do not share risk characteristics with other pools are removed from the collective evaluation and evaluated for expected credit losses on an individual basis. For loans with similar risk characteristics, the FHLB determines the allowance for credit losses through analyses that include consideration of various loan portfolio and collateral-related characteristics, such as past performance, current conditions, and reasonable and supportable forecasts of expected economic conditions. The FHLB uses a model that employs a variety of methods, such as projected cash flows to estimate expected credit losses over the life of the loans. This model relies on a number of inputs, such as both current and forecasted property values and interest rates as well as historical borrower behavior experience. The FHLB's calculation of expected credit losses includes a forecast of home prices over the entire contractual terms of its conventional loans rather than a reversion to historical home price trends after an initial forecast period. The FHLB also incorporates associated credit enhancements to determine estimated expected credit losses.

Certain conventional loans may be evaluated for credit losses by using the practical expedient for collateral dependent assets. A mortgage loan is considered collateral dependent if repayment is expected to be provided by the sale of the underlying property, that is, if it is considered likely that the borrower will default. The FHLB may estimate the fair value of this collateral by either applying an appropriate loss severity rate, using third-party estimates, or using a property valuation model. The expected credit loss of a collateral dependent mortgage loan is equal to the difference between the amortized cost of the loan and the estimated

fair value of the collateral, less estimated selling costs. The FHLB will either reserve for these estimated losses or record a direct charge-off of the loan balance, if certain triggering criteria are met. Expected recoveries of prior charge-offs, if any, are included in the allowance for credit losses.

The FHLB also assesses other qualitative factors in its estimation of loan losses for the collectively evaluated population. This amount represents a subjective management judgment, based on facts and circumstances that exist as of the reporting date, which is intended to cover other expected losses that may not otherwise be captured in the methodology described above.

Allowance for Credit Losses on Conventional Mortgage Loans. The FHLB established an allowance for credit losses on its conventional mortgage loans held for portfolio. The following table presents a rollforward of the allowance for credit losses on conventional mortgage loans.

Table 5.7 - Allowance for Credit Losses on Conventional Mortgage Loans (in thousands)

	Three Months Ended March 31,	
	2021	**2020**
Balance, beginning of period	$ 248	$ 711
Adjustment for cumulative effect of accounting change	—	(366)
Net charge offs	—	(48)
Balance, end of period	$ 248	$ 297

Note 6 - Derivatives and Hedging Activities

Nature of Business Activity

The FHLB is exposed to interest rate risk primarily from the effect of interest rate changes on its interest-earning assets and on the interest-bearing liabilities that finance these assets. 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 2020 Annual Report on Form 10-K for additional information on the FHLB's derivative transactions.

The FHLB transacts its derivatives with 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. Once a derivative transaction has been accepted for clearing by a Derivative Clearing Organization (Clearinghouse), the executing counterparty is replaced with the Clearinghouse. 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 overall risk is much smaller. 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)

	March 31, 2021		
	Notional Amount of Derivatives	Derivative Assets	Derivative Liabilities
Derivatives designated as fair value hedging instruments:			
Interest rate swaps	$ 10,278,209	$ 3,354	$ 102,648
Derivatives not designated as hedging instruments:			
Interest rate swaps	10,549,264	4,040	120
Interest rate swaptions	1,740,000	4,502	—
Mortgage delivery commitments	87,643	22	953
Total derivatives not designated as hedging instruments	12,376,907	8,564	1,073
Total derivatives before adjustments	$ 22,655,116	11,918	103,721
Netting adjustments and cash collateral [(1)]		185,295	(102,748)
Total derivative assets and total derivative liabilities		$ 197,213	$ 973

	December 31, 2020		
	Notional Amount of Derivatives	Derivative Assets	Derivative Liabilities
Derivatives designated as fair value hedging instruments:			
Interest rate swaps	$ 10,477,703	$ 272	$ 163,174
Derivatives not designated as hedging instruments:			
Interest rate swaps	13,267,539	691	2,563
Interest rate swaptions	2,175,000	713	—
Mortgage delivery commitments	137,352	1,056	—
Total derivatives not designated as hedging instruments	15,579,891	2,460	2,563
Total derivatives before adjustments	$ 26,057,594	2,732	165,737
Netting adjustments and cash collateral [(1)]		213,156	(161,924)
Total derivative assets and total derivative liabilities		$ 215,888	$ 3,813

(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) $289,773 and $375,390 at March 31, 2021 and December 31, 2020. Cash collateral received, including accrued interest, was (in thousands) $1,730 and $310 at March 31, 2021 and December 31, 2020.

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)

	Three Months Ended March 31, 2021		
	Advances	Available-for-Sale Securities	Consolidated Bonds
Total interest income (expense) recorded in the Statements of Income	$ 41,160	$ 1,335	$ (96,186)
Impact of Fair Value Hedging Relationships			
Interest rate swaps:			
Net interest settlements	$ (32,844)	$ (879)	$ 251
Gain (loss) on derivatives	148,614	16,607	(375)
Gain (loss) on hedged items	(144,809)	(15,774)	370
Effect on net interest income	$ (29,039)	$ (46)	$ 246

	Three Months Ended March 31, 2020		
	Advances	Available-for-Sale Securities	Consolidated Bonds
Total interest income (expense) recorded in the Statements of Income	$ 172,167	$ 3,396	$ (185,987)
Impact of Fair Value Hedging Relationships			
Interest rate swaps:			
Net interest settlements	$ (1,714)	$ (274)	$ 384
Gain (loss) on derivatives	(404,311)	(11,183)	2,523
Gain (loss) on hedged items	390,464	10,795	(2,546)
Effect on net interest income	$ (15,561)	$ (662)	$ 361

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)

	March 31, 2021		
	Advances	Available-for-Sale Securities	Consolidated Bonds
Amortized cost of hedged asset or liability [(1)]	$ 10,056,759	$ 271,072	$ 209,389
Fair value hedging adjustments			
Basis adjustments for active hedging relationships included in amortized cost	$ 211,948	$ (4,013)	$ 1,716
Basis adjustments for discontinued hedging relationships included in amortized cost	1,416	380	—
Total amount of fair value hedging basis adjustments	$ 213,364	$ (3,633)	$ 1,716

	December 31, 2020		
	Advances	Available-for-Sale Securities	Consolidated Bonds
Amortized cost of hedged asset or liability [(1)]	$ 10,483,218	$ 286,869	$ 132,852
Fair value hedging adjustments			
Basis adjustments for active hedging relationships included in amortized cost	$ 356,624	$ 11,751	$ 2,086
Basis adjustments for discontinued hedging relationships included in amortized cost	1,549	389	—
Total amount of fair value hedging basis adjustments	$ 358,173	$ 12,140	$ 2,086

(1) Includes only the portion of amortized cost representing the hedged items in fair value hedging relationships.

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)

	Three Months Ended March 31,	
	2021	2020
Derivatives not designated as hedging instruments:		
Economic hedges:		
Interest rate swaps	$ 140,780	$ (367,001)
Interest rate swaptions	3,789	92,077
Forward rate agreements	—	(25,884)
Net interest settlements	(44,208)	(11,282)
Mortgage delivery commitments	(3,264)	17,094
Total net gains (losses) related to derivatives not designated as hedging instruments	97,097	(294,996)
Price alignment amount [(1)]	47	1,030
Net gains (losses) on derivatives and hedging activities	$ 97,144	$ (293,966)

(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 due to the risk of non-performance by counterparties to its derivative transactions, and manages credit risk through credit analysis, 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 the 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 March 31, 2021, 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. At March 31, 2021 and December 31, 2020, the FHLB did not receive or pledge any non-cash 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)

	March 31, 2021			
	Derivative Instruments Meeting Netting Requirements			
	Gross Recognized Amount	Gross Amount of Netting Adjustments and Cash Collateral	Derivative Instruments Not Meeting Netting Requirements [1]	Total Derivative Assets and Total Derivative Liabilities
Derivative Assets:				
Uncleared	$ 6,185	$ (5,113)	$ 22	$ 1,094
Cleared	5,711	190,408	—	196,119
Total				$ 197,213
Derivative Liabilities:				
Uncleared	$ 102,739	$ (102,719)	$ 953	$ 973
Cleared	29	(29)	—	—
Total				$ 973

	December 31, 2020			
	Derivative Instruments Meeting Netting Requirements			
	Gross Recognized Amount	Gross Amount of Netting Adjustments and Cash Collateral	Derivative Instruments Not Meeting Netting Requirements [1]	Total Derivative Assets and Total Derivative Liabilities
Derivative Assets:				
Uncleared	$ 1,047	$ (1,047)	$ 1,056	$ 1,056
Cleared	629	214,203	—	214,832
Total				$ 215,888
Derivative Liabilities:				
Uncleared	$ 161,633	$ (157,820)	$ —	$ 3,813
Cleared	4,104	(4,104)	—	—
Total				$ 3,813

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

Note 7 - Deposits

Table 7.1 - Deposits (in thousands)

	March 31, 2021	December 31, 2020
Interest-bearing:		
Demand and overnight	$ 1,302,638	$ 1,190,508
Term	88,925	123,675
Other	10,926	13,019
Total interest-bearing deposits	$ 1,402,489	$ 1,327,202

Note 8 - Consolidated Obligations

Table 8.1 - Consolidated Discount Notes Outstanding (dollars in thousands)

	Book Value	Principal Amount	Weighted Average Interest Rate (1)
March 31, 2021	$ 26,872,494	$ 26,873,163	0.03 %
December 31, 2020	$ 27,500,244	$ 27,502,730	0.11 %

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

Table 8.2 - Consolidated Bonds Outstanding by Original Contractual Maturity (dollars in thousands)

	March 31, 2021		December 31, 2020	
Year of Original Contractual Maturity	Amount	Weighted Average Interest Rate	Amount	Weighted Average Interest Rate
Due in 1 year or less	$ 15,205,595	0.61 %	$ 18,676,595	0.72 %
Due after 1 year through 2 years	2,857,830	2.31	2,728,885	2.38
Due after 2 years through 3 years	2,967,175	2.08	3,388,120	2.09
Due after 3 years through 4 years	1,676,405	2.14	1,793,405	2.21
Due after 4 years through 5 years	1,860,000	1.61	1,910,000	1.45
Thereafter	3,203,000	2.28	3,454,000	2.39
Total principal amount	27,770,005	1.30	31,951,005	1.32
Premiums	38,880		43,235	
Discounts	(20,003)		(21,403)	
Hedging adjustments	1,716		2,086	
Fair value option valuation adjustment and accrued interest	7,843		21,388	
Total	$ 27,798,441		$ 31,996,311	

Table 8.3 - Consolidated Bonds Outstanding by Call Features (in thousands)

	March 31, 2021	December 31, 2020
Principal Amount of Consolidated Bonds:		
Non-callable	$ 23,454,005	$ 26,539,005
Callable	4,316,000	5,412,000
Total principal amount	$ 27,770,005	$ 31,951,005

Table 8.4 - Consolidated Bonds Outstanding by Original Contractual Maturity or Next Call Date (in thousands)

Year of Original Contractual Maturity or Next Call Date	March 31, 2021	December 31, 2020
Due in 1 year or less	$ 19,521,595	$ 22,968,595
Due after 1 year through 2 years	2,832,830	2,823,885
Due after 2 years through 3 years	1,962,175	2,452,120
Due after 3 years through 4 years	1,160,405	1,253,405
Due after 4 years through 5 years	723,000	728,000
Thereafter	1,570,000	1,725,000
Total principal amount	$ 27,770,005	$ 31,951,005

Table 8.5 - Consolidated Bonds by Interest-rate Payment Type (in thousands)

	March 31, 2021	December 31, 2020
Principal Amount of Consolidated Bonds:		
Fixed-rate	$ 18,932,005	$ 21,312,005
Variable-rate	8,838,000	10,639,000
Total principal amount	$ 27,770,005	$ 31,951,005

Note 9 - Affordable Housing Program (AHP)

The FHLBank Act requires each FHLBank to establish an AHP. Each FHLBank provides subsidies in the form of direct grants and below-market interest rate AHP Advances to members who use the funds to assist in the purchase, construction, or rehabilitation of housing for very low-, low-, and moderate-income households. Each FHLBank is required to contribute to its AHP the greater of 10 percent of its previous year's 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 AHP calculation, income subject to assessment is defined as net income before 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.

Table 9.1 - Analysis of AHP Liability (in thousands)

Balance at December 31, 2020	$ 110,772
Assessments (current year additions)	2,091
Subsidy uses, net	(4,621)
Balance at March 31, 2021	$ 108,242

Note 10 - Capital

Table 10.1 - Capital Requirements (dollars in thousands)

	March 31, 2021		December 31, 2020	
	Minimum Requirement	Actual	Minimum Requirement	Actual
Risk-based capital	$ 651,154	$ 4,072,140	$ 539,321	$ 3,964,353
Capital-to-assets ratio (regulatory)	4.00 %	6.72 %	4.00 %	6.07 %
Regulatory capital	$ 2,425,354	$ 4,072,140	$ 2,611,850	$ 3,964,353
Leverage capital-to-assets ratio (regulatory)	5.00 %	10.07 %	5.00 %	9.11 %
Leverage capital	$ 3,031,693	$ 6,108,210	$ 3,264,812	$ 5,946,530

Restricted Retained Earnings. At March 31, 2021 and December 31, 2020 the FHLB had (in thousands) $505,066 and $501,321 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 10.2 - Mandatorily Redeemable Capital Stock Rollforward (in thousands)

Balance, December 31, 2020	$ 19,454
Capital stock subject to mandatory redemption reclassified from equity	1,003
Repurchase/redemption of mandatorily redeemable capital stock	(5,127)
Balance, March 31, 2021	$ 15,330

Table 10.3 - Mandatorily Redeemable Capital Stock by Contractual Year of Redemption (in thousands)

Contractual Year of Redemption	March 31, 2021	December 31, 2020
Year 1	$ 165	$ 156
Year 2	1,142	1,124
Year 3	1,821	2,167
Year 4	270	391
Year 5	739	3,142
Thereafter [(1)]	—	650
Past contractual redemption date due to remaining activity [(2)]	11,193	11,824
Total	$ 15,330	$ 19,454

(1) Represents mandatorily redeemable capital stock resulting from a Finance Agency rule effective February 19, 2016, that made captive insurance companies ineligible for FHLB membership. Captive insurance companies that were admitted as FHLB members prior to September 12, 2014, had their membership terminated no later than February 19, 2021. The related mandatorily redeemable capital stock is not required to be redeemed until five years after the member's termination.

(2) 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 11 - Accumulated Other Comprehensive Income (Loss)

The following tables summarize the changes in accumulated other comprehensive income (loss) for the three months ended March 31, 2021 and 2020.

Table 11.1 - 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)
BALANCE, DECEMBER 31, 2019	$ 370	$ (16,764)	$ (16,394)
Other comprehensive income before reclassification:			
Net unrealized gains (losses)	(905)	—	(905)
Reclassifications from other comprehensive income (loss) to net income:			
Amortization - pension and postretirement benefits	—	563	563
Net current period other comprehensive income (loss)	(905)	563	(342)
BALANCE, MARCH 31, 2020	$ (535)	$ (16,201)	$ (16,736)
BALANCE, DECEMBER 31, 2020	$ 4,718	$ (19,703)	$ (14,985)
Other comprehensive income before reclassification:			
Net unrealized gains (losses)	2,687	—	2,687
Reclassifications from other comprehensive income (loss) to net income:			
Amortization - pension and postretirement benefits	—	676	676
Net current period other comprehensive income (loss)	2,687	676	3,363
BALANCE, MARCH 31, 2021	$ 7,405	$ (19,027)	$ (11,622)

Note 12 - Pension and Postretirement Benefit Plans

Qualified Defined Benefit Multi-employer Plan. The FHLB participates in the Pentegra Defined Benefit Plan for Financial Institutions (Pentegra Defined Benefit Plan), a tax-qualified defined benefit pension plan. Under the Pentegra Defined Benefit Plan, contributions made by one participating employer may be used to provide benefits to employees of other participating employers because assets contributed by an employer are not segregated in a separate account or restricted to provide benefits only to employees of that employer. Also, in the event a participating employer is unable to meet its contribution requirements, the required contributions for the other participating employers could increase proportionately. The Pentegra Defined Benefit Plan covers all officers and employees of the FHLB who meet certain eligibility requirements. Contributions to the Pentegra Defined Benefit Plan charged to compensation and benefit expense were $1,696,000 and $1,518,000 in the three months ended March 31, 2021 and 2020, respectively.

Qualified Defined Contribution Plan. The FHLB also participates in the Fidelity Defined Contribution Plan, a tax-qualified, defined contribution plan. The FHLB contributes a percentage of the participants' compensation by making a matching contribution equal to a percentage of voluntary employee contributions, subject to certain IRS limitations. The FHLB contributed $603,000 and $538,000 in the three months ended March 31, 2021 and 2020, respectively.

Non-qualified Supplemental Defined Benefit Retirement Plan (Defined Benefit Retirement Plan). The FHLB maintains a non-qualified, unfunded defined benefit plan. The plan ensures that participants receive the full amount of benefits to which they would have been entitled under the qualified defined benefit plan in the absence of limits on benefit levels imposed by the IRS. There are no funded plan assets. The FHLB has established a grantor trust, which is included in held-to-maturity securities on the Statements of Condition, to meet future benefit obligations and current payments to beneficiaries.

Postretirement Benefits Plan. The FHLB also sponsors a Postretirement Benefits Plan that includes health care and life insurance benefits for eligible retirees. Future retirees are eligible for the postretirement benefits plan if they were hired prior to August 1, 1990, are age 55 or older, and their age plus years of continuous service at retirement are greater than or equal to 80. Spouses are covered subject to required contributions. There are no funded plan assets that have been designated to provide postretirement benefits.

Table 12.1 - Net Periodic Benefit Cost (in thousands)

	Three Months Ended March 31,			
	Defined Benefit Retirement Plan		Postretirement Benefits Plan	
	2021	2020	2021	2020
Net Periodic Benefit Cost				
Service cost	$ 326	$ 275	$ 2	$ 2
Interest cost	274	331	29	36
Amortization of net loss	663	563	13	—
Net periodic benefit cost	$ 1,263	$ 1,169	$ 44	$ 38

For the Defined Benefit Retirement Plan and the Postretirement Benefits Plan, the related service cost is recorded as part of Non-Interest Expense - Compensation and Benefits on the Statements of Income. The non-service related components of interest cost and amortization of net loss are recorded as Non-Interest Expense - Other in the Statements of Income.

Note 13 - 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 13.1 - Financial Performance by Operating Segment (in thousands)

	Three Months Ended March 31,		
	Traditional Member Finance	MPP	Total
2021			
Net interest income (loss)	$ 87,382	$ (11,476)	$ 75,906
Non-interest income (loss)	(31,026)	(539)	(31,565)
Non-interest expense	20,724	2,799	23,523
Income (loss) before assessments	35,632	(14,814)	20,818
Affordable Housing Program assessments	3,572	(1,481)	2,091
Net income (loss)	$ 32,060	$ (13,333)	$ 18,727
2020			
Net interest income	$ 64,649	$ 17,466	$ 82,115
Non-interest income (loss)	(23,580)	54,269	30,689
Non-interest expense	21,107	3,173	24,280
Income before assessments	19,962	68,562	88,524
Affordable Housing Program assessments	2,015	6,856	8,871
Net income	$ 17,947	$ 61,706	$ 79,653

Table 13.2 - Asset Balances by Operating Segment (in thousands)

	Assets		
	Traditional Member Finance	MPP	Total
March 31, 2021	$ 49,101,092	$ 11,532,759	$ 60,633,851
December 31, 2020	53,356,209	11,940,030	65,296,239

Note 14 - 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 three months ended March 31, 2021 or 2020.

Table 14.1 presents the net carrying value/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 14.2 for further details about the financial assets and liabilities held at fair value on either a recurring or nonrecurring basis.

Table 14.1 - Fair Value Summary (in thousands)

	March 31, 2021					
		Fair Value				
Financial Instruments	**Net Carrying Value**	**Total**	**Level 1**	**Level 2**	**Level 3**	**Netting Adjustments and Cash Collateral [1]**
Assets:						
Cash and due from banks	$ 3,113,972	$ 3,113,972	$ 3,113,972	$ —	$ —	$ —
Interest-bearing deposits	340,252	340,252	—	340,252	—	—
Securities purchased under agreements to resell	288,300	288,300	—	288,300	—	—
Federal funds sold	4,805,000	4,805,000	—	4,805,000	—	—
Trading securities	9,585,217	9,585,217	—	9,585,217	—	—
Available-for-sale securities	278,477	278,477	—	278,477	—	—
Held-to-maturity securities	8,911,352	9,029,550	—	9,029,550	—	—
Advances [2]	24,365,438	24,581,477	—	24,581,477	—	—
Mortgage loans held for portfolio	8,598,461	8,782,625	—	8,725,817	56,808	—
Accrued interest receivable	122,676	122,676	—	122,676	—	—
Derivative assets	197,213	197,213	—	11,918	—	185,295
Liabilities:						
Deposits	1,402,489	1,402,497	—	1,402,497	—	—
Consolidated Obligations:						
Discount Notes [3]	26,872,494	26,872,966	—	26,872,966	—	—
Bonds [4]	27,798,441	28,330,775	—	28,330,775	—	—
Mandatorily redeemable capital stock	15,330	15,330	15,330	—	—	—
Accrued interest payable	67,314	67,314	—	67,314	—	—
Derivative liabilities	973	973	—	103,721	—	(102,748)

(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.

(2) Includes (in thousands) $25,902 of Advances recorded under the fair value option at March 31, 2021.

(3) Includes (in thousands) $1,019,989 of Consolidated Obligation Discount Notes recorded under the fair value option at March 31, 2021.

(4) Includes (in thousands) $448,843 of Consolidated Obligation Bonds recorded under the fair value option at March 31, 2021.

Financial Instruments	December 31, 2020					
		Fair Value				
	Carrying Value	Total	Level 1	Level 2	Level 3	Netting Adjustments and Cash Collateral [(1)]
Assets:						
Cash and due from banks	$ 2,984,073	$ 2,984,073	$ 2,984,073	$ —	$ —	$ —
Interest-bearing deposits	555,104	555,104	—	555,104	—	—
Securities purchased under agreements to resell	1,818,268	1,818,268	—	1,818,268	—	—
Federal funds sold	4,240,000	4,240,000	—	4,240,000	—	—
Trading securities	10,488,124	10,488,124	—	10,488,124	—	—
Available-for-sale securities	291,587	291,587	—	291,587	—	—
Held-to-maturity securities	9,648,171	9,792,136	—	9,792,136	—	—
Advances [(2)]	25,362,003	25,573,785	—	25,573,785	—	—
Mortgage loans held for portfolio	9,548,506	9,861,802	—	9,798,019	63,783	—
Accrued interest receivable	113,701	113,701	—	113,701	—	—
Derivative assets	215,888	215,888	—	2,732	—	213,156
Liabilities:						
Deposits	1,327,202	1,327,267	—	1,327,267	—	—
Consolidated Obligations:						
Discount Notes	27,500,244	27,501,296	—	27,501,296	—	—
Bonds [(3)]	31,996,311	32,785,647	—	32,785,647	—	—
Mandatorily redeemable capital stock	19,454	19,454	19,454	—	—	—
Accrued interest payable	77,521	77,521	—	77,521	—	—
Derivative liabilities	3,813	3,813	—	165,737	—	(161,924)

(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.

(2) Includes (in thousands) $27,202 of Advances recorded under the fair value option at December 31, 2020.

(3) Includes (in thousands) $2,262,388 of Consolidated Obligation Bonds recorded under the fair value option at December 31, 2020.

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 Statement of Condition are disclosed in Note 15 - Fair Value Disclosures in the FHLB's 2020 Annual Report on Form 10-K. There have been no significant changes in the valuation methodologies during the three months ended March 31, 2021.

Fair Value Measurements.

Table 14.2 presents the fair value of financial assets and liabilities that are recorded on a recurring or nonrecurring basis at March 31, 2021 and December 31, 2020, by level within the fair value hierarchy. The FHLB records nonrecurring fair value adjustments to reflect partial write-downs on certain mortgage loans.

Table 14.2 - Fair Value Measurements (in thousands)

	Fair Value Measurements at March 31, 2021				
	Total	**Level 1**	**Level 2**	**Level 3**	**Netting Adjustments and Cash Collateral [(1)]**
Recurring fair value measurements - Assets					
Trading securities:					
U.S. Treasury obligations	$ 7,573,745	$ —	$ 7,573,745	$ —	$ —
GSE obligations	2,011,179	—	2,011,179	—	—
U.S. obligation single-family MBS	293	—	293	—	—
Total trading securities	9,585,217	—	9,585,217	—	—
Available-for-sale securities:					
GSE obligations	137,244	—	137,244	—	—
GSE multi-family MBS	141,233	—	141,233	—	—
Total available-for-sale securities	278,477	—	278,477	—	—
Advances	25,902	—	25,902	—	—
Derivative assets:					
Interest rate related	197,191	—	11,896	—	185,295
Mortgage delivery commitments	22	—	22	—	—
Total derivative assets	197,213	—	11,918	—	185,295
Total assets at fair value	$ 10,086,809	$ —	$ 9,901,514	$ —	$ 185,295
Recurring fair value measurements - Liabilities					
Consolidated Obligations:					
Discount Notes	$ 1,019,989	$ —	$ 1,019,989	$ —	$ —
Bonds	448,843	—	448,843	—	—
Total Consolidated Obligations	1,468,832	—	1,468,832	—	—
Derivative liabilities:					
Interest rate related	20	—	102,768	—	(102,748)
Mortgage delivery commitments	953	—	953	—	—
Total derivative liabilities	973	—	103,721	—	(102,748)
Total liabilities at fair value	$ 1,469,805	$ —	$ 1,572,553	$ —	$ (102,748)

(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, 2020				
	Total	**Level 1**	**Level 2**	**Level 3**	**Netting Adjustments and Cash Collateral [(1)]**
Recurring fair value measurements - Assets					
Trading securities:					
U.S. Treasury obligations	$ 8,362,211	$ —	$ 8,362,211	$ —	$ —
GSE obligations	2,125,580	—	2,125,580	—	—
U.S. obligation single-family MBS	333	—	333	—	—
Total trading securities	10,488,124	—	10,488,124	—	—
Available-for-sale securities:					
GSE obligations	142,402	—	142,402	—	—
GSE multi-family MBS	149,185	—	149,185	—	—
Total available-for-sale securities	291,587	—	291,587	—	—
Advances	27,202	—	27,202	—	—
Derivative assets:					
Interest rate related	214,832	—	1,676	—	213,156
Mortgage delivery commitments	1,056	—	1,056	—	—
Total derivative assets	215,888	—	2,732	—	213,156
Total assets at fair value	$ 11,022,801	$ —	$ 10,809,645	$ —	$ 213,156
Recurring fair value measurements - Liabilities					
Consolidated Obligation Bonds	$ 2,262,388	$ —	$ 2,262,388	$ —	$ —
Derivative liabilities:					
Interest rate related	3,813	—	165,737	—	(161,924)
Total derivative liabilities	3,813	—	165,737	—	(161,924)
Total liabilities at fair value	$ 2,266,201	$ —	$ 2,428,125	$ —	$ (161,924)
Nonrecurring fair value measurements - Assets [(2)]					
Mortgage loans held for portfolio	$ 108	$ —	$ —	$ 108	

(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.

(2) The fair value information presented is as of the date the fair value adjustment was recorded during the year ended December 31, 2020.

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 14.3 presents net gains (losses) recognized in earnings related to financial assets and liabilities in which the fair value option was elected during the three months ended March 31, 2021 and 2020.

Table 14.3 – Fair Value Option - Financial Assets and Liabilities (in thousands)

	Three Months Ended March 31,	
Net Gains (Losses) from Changes in Fair Value Recognized in Earnings	**2021**	**2020**
Advances	$ (1,300)	$ 147
Consolidated Discount Notes	(5)	(14,026)
Consolidated Bonds	5,210	(36,951)
Total net gains (losses)	$ 3,905	$ (50,830)

For instruments recorded under the fair value option, the related contractual interest income and contractual interest expense 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 in the Statement of Condition. The FHLB has determined that none of the remaining changes in fair value were related to instrument-specific credit risk for the three months ended March 31, 2021 or 2020. 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 14.4 – Aggregate Unpaid Balance and Aggregate Fair Value (in thousands)

	March 31, 2021			December 31, 2020		
	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	$ 26,500	$ 25,902	$ (598)	$ 26,500	$ 27,202	$ 702
Consolidated Discount Notes	1,020,000	1,019,989	(11)	—	—	—
Consolidated Bonds	441,000	448,843	7,843	2,241,000	2,262,388	21,388

Note 15 - Commitments and Contingencies

Off-Balance Sheet Commitments. Table 15.1 represents off-balance sheet commitments at March 31, 2021 and December 31, 2020. The FHLB has deemed it unnecessary to record any liabilities for credit losses on these commitments at March 31, 2021 and December 31, 2020.

Table 15.1 - Off-Balance Sheet Commitments (in thousands)

	March 31, 2021			December 31, 2020		
Notional Amount	Expire within one year	Expire after one year	Total	Expire within one year	Expire after one year	Total
Standby Letters of Credit	$ 32,360,840	$1,289,107	$33,649,947	$ 27,741,220	$1,071,029	$28,812,249
Commitments for standby bond purchases	16,350	14,940	31,290	—	35,030	35,030
Commitments to purchase mortgage loans	87,643	—	87,643	137,352	—	137,352
Unsettled Consolidated Discount Notes, principal amount [(1)]	—	—	—	321,551	—	321,551

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

The carrying value of guarantees related to Standby Letters of Credit are recorded in other liabilities and were (in thousands) $9,799 and $8,675 at March 31, 2021 and December 31, 2020.

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 ultimate liability, if any, arising out of any matters will have a material effect on the FHLB's financial condition or results of operations.

Note 16 - Transactions with Other FHLBanks

The FHLB notes all 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 then current market rates when traded. There were no such loans or borrowings outstanding at March 31, 2021 or December 31, 2020. The following table details the average daily balance of lending and borrowing between the FHLB and other FHLBanks for the three months ended March 31, 2021 and 2020.

Table 16.1 - Lending and Borrowing Between the FHLB and Other FHLBanks (in thousands)

	Average Daily Balances for the Three Months Ended March 31,	
	2021	2020
Loans to other FHLBanks	$ —	$ 19,780

In addition, the FHLB may, from time to time, assume the outstanding primary liability for Consolidated Obligations of another FHLBank (at then current market rates on the day when the transfer is traded) rather than issuing new debt for which the FHLB is the primary obligor. The FHLB then becomes the primary obligor on the transferred debt. There were no Consolidated Obligations transferred to the FHLB during the three months ended March 31, 2021 or 2020. The FHLB had no Consolidated Obligations transferred to other FHLBanks during these periods.

Note 17 - 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 activities with the FHLB. All Advances are issued to members and all mortgage loans held for portfolio are purchased from members. 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 and it has not purchased any MBS securitized by, or other direct long-term investments in, 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. 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. Due to these statutory limitations, no member owned more than 10 percent of the voting interests of the FHLB at March 31, 2021 or December 31, 2020.

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.

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 March 31, 2021 or December 31, 2020.

Table 17.1 - Transactions with Directors' Financial Institutions (dollars in millions)

	March 31, 2021		December 31, 2020	
	Balance	% of Total [(1)]	Balance	% of Total [(1)]
Advances	$ 7,126	29.5 %	$ 7,048	28.2 %
MPP	158	1.9	159	1.7
Regulatory capital stock	666	24.1	467	17.6

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

	Regulatory Capital Stock		Advance	MPP Unpaid
March 31, 2021	Balance	% of Total	Principal	Principal Balance
U.S. Bank, N.A.	$ 455	16 %	$ 4,273	$ 12
Third Federal Savings & Loan Association	163	6	3,292	37

	Regulatory Capital Stock		Advance	MPP Unpaid
December 31, 2020	Balance	% of Total	Principal	Principal Balance
U.S. Bank, N.A.	$ 288	11 %	$ 4,273	$ 13
JPMorgan Chase Bank, N.A.	163	6	—	—
Third Federal Savings & Loan Association	137	5	3,443	42

Nonmember Affiliates. The FHLB has relationships with three nonmember affiliates, 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 affiliates at March 31, 2021 or December 31, 2020. The FHLB has executed standby bond purchase agreements with the Ohio Housing Finance Agency whereby the FHLB, for a fee, agrees as a liquidity provider if required, to purchase and hold the authority's bonds until the designated marketing agent can find a suitable investor or the housing authority repurchases the bond according to a schedule established by the standby agreement. During the first three months of 2021 and 2020, the FHLB was not required to purchase any bonds under these agreements.

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

This document 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, 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. Some of the risks and uncertainties that could affect our forward-looking statements include 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, 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;

- political, national, or world events, including acts of war, civil unrest, terrorism, natural disasters, climate change, pandemics, including the current COVID-19 pandemic, or other catastrophic events, and legislative, regulatory,

government, judicial or other developments that could affect us, our members, our counterparties, other Federal Home Loan Banks (FHLBanks) and other government-sponsored enterprises (GSEs), and/or investors in the Federal Home Loan Bank System's (FHLBank System) unsecured debt securities, which are called Consolidated Obligations or Obligations;

- 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 favorable terms or preserve our profitability, or could alter the regulations and legislation to which we are subject;
- changes in ratings assigned to FHLBank System Obligations or the FHLB that could raise our funding cost;
- 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;
- uncertainties relating to the phasing out of the London InterBank Offered Rate (LIBOR) that could impact our mortgage-backed securities (MBS) investments, Advances, Consolidated Obligations, derivatives, and collateral;
- the ability to attract and retain skilled management and other key employees;
- the ability to develop, secure and support technology and information systems that 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 document.

EXECUTIVE OVERVIEW

The following table presents selected Statement of Condition data, Statement of Income data and financial ratios for the periods indicated.

(Dollars in millions)	March 31, 2021	December 31, 2020	September 30, 2020	June 30, 2020	March 31, 2020
STATEMENT OF CONDITION DATA AT PERIOD END:					
Total assets	$ 60,634	$ 65,296	$ 74,077	$ 90,645	$ 122,510
Advances	24,365	25,362	27,101	48,913	80,425
Mortgage loans held for portfolio	8,599	9,549	10,671	11,704	11,923
Investments [1]	24,209	27,041	34,514	29,533	25,665
Consolidated Obligations:					
Discount Notes	26,873	27,500	26,668	44,324	79,660
Bonds	27,798	31,997	41,432	39,339	34,668
Total Consolidated Obligations	54,671	59,497	68,100	83,663	114,328
Mandatorily redeemable capital stock	15	19	17	19	572
Capital:					
Capital stock - putable	2,748	2,641	2,935	3,813	4,739
Retained earnings	1,309	1,304	1,282	1,247	1,153
Accumulated other comprehensive loss	(12)	(15)	(12)	(16)	(17)
Total capital	4,045	3,930	4,205	5,044	5,875
STATEMENT OF INCOME DATA FOR THE QUARTER:					
Net interest income	$ 76	$ 81	$ 93	$ 149	$ 82
Non-interest income (loss)	(32)	(15)	(7)	(15)	31
Non-interest expense	23	22	22	24	24
Affordable Housing Program assessments	2	4	7	11	9
Net income	$ 19	$ 40	$ 57	$ 99	$ 80
FINANCIAL RATIOS FOR THE QUARTER:					
Dividend payout ratio [2]	74.2 %	45.5 %	38.4 %	21.7 %	27.4 %
Weighted average dividend rate [3]	2.00	2.00	2.00	2.50	2.50
Return on average equity	1.96	3.93	4.70	7.12	6.94
Return on average assets	0.12	0.23	0.26	0.37	0.34
Net interest margin [4]	0.49	0.48	0.43	0.58	0.36
Average equity to average assets	6.13	5.97	5.61	5.22	4.95
Regulatory capital ratio [5]	6.72	6.07	5.72	5.60	5.28
Operating expense to average assets [6]	0.121	0.104	0.079	0.063	0.084

(1) Investments include interest bearing deposits in banks, securities purchased under agreements to resell, Federal funds sold, trading securities, available-for-sale securities, and held-to-maturity securities.
(2) Dividend payout ratio is dividends declared in the period as a percentage of net income.
(3) Weighted average dividend rates are dividends paid divided by the average number of shares of capital stock eligible for dividends.
(4) Net interest margin is net interest income as a percentage of average earning assets.
(5) Regulatory capital ratio is period-end regulatory capital (capital stock, mandatorily redeemable capital stock and retained earnings) as a percentage of period-end total assets.
(6) Operating expenses comprise compensation and benefits and other operating expenses, which are included in non-interest expense.

Recent Developments

COVID-19 Pandemic

The global outbreak of COVID-19 has impacted communities and businesses worldwide, including those in the Fifth District. The effects of COVID-19 continue to evolve, and the full impact and duration of the virus are unknown. Throughout the COVID-19 pandemic, we have continued to fulfill our mission of providing robust access to a key source of readily available and competitively priced wholesale funding to member financial institutions and supporting our commitment to affordable housing and community investment, while maintaining strong capital and liquidity positions.

At this time, we cannot predict the ultimate impact of COVID-19 on our members, counterparties, vendors, and other third parties we rely upon to conduct our business. However, we continue to monitor the progression of COVID-19 and are committed to assisting members and their communities as impacts related to the pandemic continue to unfold.

Financial Condition

Mission Asset Activity

Mission Assets, which we define as Advances, Letters of Credit, and total MPP are the primary means by which we fulfill our mission with direct connections to members. We regularly monitor our balance sheet concentration of Mission Asset Activity. 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 three months of 2021, the Primary Mission Asset ratio averaged 68 percent, slightly below the Finance Agency's preferred ratio of 70 percent. In assessing overall mission achievement, we also consider supplemental sources of Mission Asset Activity, the most significant of which is Letters of Credit issued to members.

The following table summarizes our Mission Asset Activity.

	Ending Balances			Average Balances		
	March 31,		December 31,	Three Months Ended March 31,		Year Ended December 31,
(In millions)	2021	2020	2020	2021	2020	2020
Mission Asset Activity:						
Advances (principal)	$ 24,157	$ 79,929	$ 25,007	$ 24,237	$ 43,083	$ 42,917
MPP:						
Mortgage loans held for portfolio (principal)	8,391	11,644	9,316	8,876	11,491	10,995
Mandatory Delivery Contracts (notional)	88	765	137	116	685	338
Total MPP	8,479	12,409	9,453	8,992	12,176	11,333
Letters of Credit (notional)	33,650	15,785	28,812	32,031	15,583	20,141
Total Mission Asset Activity	$ 66,286	$ 108,123	$ 63,272	$ 65,260	$ 70,842	$ 74,391

At March 31, 2021, 61 percent of members held Mission Asset Activity, which was relatively stable compared to prior periods. The balance of Mission Asset Activity was $66.3 billion at March 31, 2021, an increase of $3.0 billion (five percent) from year-end 2020, which was driven by higher Letters of Credit balances. The increase in Letters of Credit was due in part to members using them to secure elevated levels of 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. Advance principal balances decreased $0.9 billion (three percent) from year-end 2020. Advance balances have remained low in the first three months of 2021 due to increased liquidity in the financial markets and increased deposit levels at member institutions.

Average principal Advance balances for the three months ended March 31, 2021 decreased $18.8 billion (44 percent) compared to the same period of 2020. Advance balances in the first quarter of 2020 were significantly higher as members sought additional liquidity during the onset of the COVID-19 pandemic. However, most of these Advances matured or prepaid by the end of 2020 and as noted above, the demand for Advances has remained low. Advance balances are often volatile due to members' ability to quickly, normally on the same day, increase or decrease their amount of Advances. We believe providing members flexibility in their funding levels helps support their asset-liability management needs and is a key benefit of membership.

We believe that reduced demand for Advances from many of our members will, or is likely to, continue in the near future. 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. 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, along with our efficient operating expenses, to preserve competitive profitability.

The MPP principal balance fell $0.9 billion (10 percent) from year-end 2020. During the first three months of 2021, we purchased $0.3 billion of mortgage loans, while principal reductions of $1.2 billion reflected the continuing high levels of mortgage loan refinance activity.

Based on earnings in the first three months of 2021, we accrued $2 million for the Affordable Housing Program (AHP) pool of funds to be available to members in 2022. In addition to the required AHP assessment, we provided voluntary sponsorship of two other housing programs. These programs provided funds to cover accessibility and emergency repairs for special needs and elderly homeowners and funds for the replacement or repair of homes damaged or destroyed by natural disasters within the Fifth District.

Investments

The balance of investments at March 31, 2021 was $24.2 billion, a decrease of $2.8 billion from year-end 2020. At March 31, 2021, investments included $9.0 billion of MBS and $15.2 billion of other investments, which consisted primarily of highly-rated short-term instruments and longer-term U.S. Treasury and GSE obligations held for liquidity. All of our MBS held at March 31, 2021 were issued and guaranteed by Fannie Mae, Freddie Mac or a U.S. agency. The decline in the balance of investments at March 31, 2021 was due to decreases in both MBS and liquidity investments. MBS balances declined due to elevated levels of prepayments of the underlying mortgages as a result of the low interest rate environment. Due to regulatory limitations regarding the purchase of MBS that reference LIBOR, we have not been able to replace the prepaid MBS with suitable alternatives that we believe provide an acceptable risk/return tradeoff. Liquidity investments decreased as the higher level of liquidity at year-end 2020 in anticipation of volatile market conditions reverted to more normal levels by March 31, 2021.

Investments averaged $28.9 billion in the first three months of 2021, a decrease of $8.5 billion (23 percent) from the average balance during the same period of 2020. The decrease in average investments reflected lower liquidity investments needed in light of the reduced Advance demand and lower MBS due to the reasons noted above. Liquidity investments can vary significantly on a daily basis during times of volatility in Advance balances. We maintained a robust amount of asset liquidity throughout the first three months of 2021 across a variety of liquidity measures, as discussed in the "Liquidity Risk" section of "Quantitative and Qualitative Disclosures About Risk Management."

Capital

Capital adequacy surpassed all minimum regulatory capital requirements in the first three months of 2021. The GAAP capital-to-assets ratio at March 31, 2021 was 6.67 percent, while the regulatory capital-to-assets ratio was 6.72 percent. Both ratios exceeded the regulatory required minimum of four percent. Regulatory capital includes mandatorily redeemable capital stock accounted for as a liability under GAAP. GAAP and regulatory capital both increased $0.1 billion in the first three months of 2021. Retained earnings totaled $1.3 billion at March 31, 2021, an increase of less than one percent from year-end 2020.

Results of Operations

Overall Results

Our earnings reflect the combination of a stable business model and conservative management of risk. Key factors that can cause significant periodic volatility in our profitability are changes in the level of interest rates, changes in spreads between benchmark interest rates and our short-term funding costs, recognition of net amortization due to accelerated prepayments of mortgage assets, and fair value adjustments related to the use of derivatives and the associated hedged items. The table below summarizes our results of operations.

	Three Months Ended March 31,		Year Ended December 31,
(Dollars in millions)	2021	2020	2020
Net income	$ 19	$ 80	$ 276
Affordable Housing Program assessments	2	9	31
Return on average equity (ROE)	1.96 %	6.94 %	5.78 %
Return on average assets	0.12	0.34	0.31
Weighted average dividend rate	2.00	2.50	2.23
Average short-term interest rates [(1)]	0.14	1.40	0.51
ROE spread to average short-term interest rates	1.82	5.54	5.27
Dividend rate spread to average short-term interest rates	1.86	1.10	1.72

(1) Average short-term interest rates consist of 3-month LIBOR and the Federal funds effective rate.

Net income decreased $61 million (76 percent) in the first three months of 2021 compared to the same period of 2020. The decline in profitability in the first three months of 2021 compared to the same period of 2020 was primarily driven by:

- *Derivatives and hedging activities.* We sold interest rate swaptions in the first quarter of 2020 in response to changes in interest rates, which resulted in net realized gains of approximately $69 million before assessments. The swaption gains were partially offset by unrealized losses on other derivatives and instruments held at fair value in response to changes in interest rates. We did not sell any interest rate swaptions in the first quarter of 2021. We use swaptions to hedge market risk exposure associated with holding fixed-rate mortgage assets and may sell them as interest rates change in order to offset actual and anticipated risks.

- *Earnings from capital.* Lower short-term interest rates reduced the earnings generated from investing our capital. We have historically derived a substantial portion of net interest income from funding short-term assets with interest-free capital.

- *Mortgage refinancing.* A higher volume of mortgage refinance activity, given the historically low interest rate environment over the past 12 months, led to a decline in balances, elevated premium amortization and lower spreads earned on our mortgage assets portfolio.

- *Advance balances.* Average Advance balances declined 43 percent. Although Advances grew significantly during the onset of the COVID-19 pandemic as members sought additional liquidity, balances subsequently fell and have remained low due to increased liquidity in the financial markets and increased deposit levels at member institutions.

Earnings levels continued to represent competitive returns on stockholders' capital investment. 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. ROE was higher than average short-term rates in the periods presented above, while we maintained risk exposures in line with our appetite for a moderate risk profile. The spread between ROE and average short-term rates, which we compute using 3-month LIBOR and the Federal funds effective rate, is a market benchmark we believe member stockholders actively use to assess the competitiveness of the return on their capital investment.

In March 2021, we paid stockholders a quarterly dividend at a 2.00 percent annualized rate on their capital investment in our company, which is 1.86 percentage points above first quarter average short-term interest rates.

Effect of Interest Rate Environment

Trends in market interest rates and the resulting shapes of the market yield curves strongly influence the results of operations and profitability because of how they affect members' demand for Mission Asset Activity, 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 1 2021		Year 2020		Quarter 1 2020	
	Ending	Average	Ending	Average	Ending	Average
Federal funds effective	0.06 %	0.08 %	0.09 %	0.37 %	0.08 %	1.25 %
Secured Overnight Financing Rate (SOFR)	0.01	0.04	0.09	0.37	0.01	1.25
3-month LIBOR	0.19	0.20	0.24	0.65	1.45	1.54
2-year LIBOR	0.29	0.22	0.20	0.49	0.49	1.18
10-year LIBOR	1.78	1.35	0.93	0.88	0.72	1.34
2-year U.S. Treasury	0.16	0.13	0.12	0.39	0.25	1.10
10-year U.S. Treasury	1.74	1.31	0.92	0.89	0.67	1.38
15-year mortgage current coupon (1)	1.39	1.05	0.71	1.21	1.22	1.88
30-year mortgage current coupon (1)	2.04	1.68	1.34	1.69	1.80	2.32

(1) Current coupon rate of Fannie Mae par MBS indications.

The target overnight Federal funds rate was in the range of zero to 0.25 percent at March 31, 2021, unchanged from December 31, 2020. The low interest rate environment reflects the evolving risks to economic activity from the COVID-19 pandemic.

Average short-term rates were approximately 115 to 135 basis points lower in the first three months of 2021 compared to the same period of 2020 and average mortgage rates decreased by approximately 65 to 85 basis points during that same period. The decline in interest rates negatively impacted income in the first three months of 2021 primarily because of lower earnings generated from investing capital and increased mortgage asset prepayments.

Business Outlook and Risk Management

Other than the updates noted below, our major business strategies, outlook for our business, and risk profiles and management have not changed substantially since our 2020 Annual Report on Form 10-K. "Quantitative and Qualitative Disclosures About Risk Management" provides details on current risk exposures.

Regulatory and Legislative Risk and Significant Developments

Significant regulatory and legislative actions and developments for the period covered by this Report not previously disclosed are summarized below.

American Rescue Plan Act of 2021: On March 11, 2021, President Biden signed into law the American Rescue Plan Act of 2021, which provided an additional $1.9 trillion dollars for COVID-19 pandemic relief. Among other appropriations, the legislation allocated $7.25 billion in additional funds to support Paycheck Protection Program (PPP) loans. Also, as part of the legislation, eligibility for PPP loans was expanded to include certain nonprofits and digital news services. Since the legislation did not expand the PPP application deadline beyond March 31, 2021, the PPP Extension Act of 2021 was signed into law on March 30, 2021, which extended the application deadline to May 31, 2021.

Federal Reserve Board Extends Paycheck Protection Program Liquidity Facility: On March 8, 2021, the Federal Reserve Board issued a press release announcing it will extend the Paycheck Protection Program Liquidity Facility (PPPLF), which was set to expire on March 31, 2021 to June 30, 2021. The Commercial Paper Funding Facility, Money Market Mutual Fund Liquidity Facility, and the Primary Dealer Credit Facility expired on March 31, 2021 since such facilities had not received significant usage. The PPPLF provides collateralized PPP loan liquidity to eligible Federal Reserve member financial institutions in order to facilitate PPP loan originations by those financial institutions.

LIBOR Transition: We are planning for the replacement of LIBOR and the establishment of SOFR as the recommended alternative to LIBOR. In March 2021, the Financial Conduct Authority announced that LIBOR will either cease to be provided by any administrator or no longer be representative immediately after December 31, 2021 (or, in the case of some more

frequently used U.S. dollar LIBOR settings, immediately after June 30, 2023). Although the Financial Conduct Authority does not expect LIBOR to become unrepresentative before the applicable cessation date and intends to consult on requiring the administrator of LIBOR to continue publishing LIBOR of certain currencies and tenors on a non-representative, synthetic basis for a period after the applicable cessation date, there is no assurance that LIBOR, of any particular currency or tenor, will continue to be published or be representative through any particular date. The market activity in SOFR-linked financial instruments has continued to develop and we have offered SOFR-linked Consolidated Obligations and SOFR-linked Advances on an ongoing basis. In addition, we have been using SOFR-based derivatives to manage interest-rate risk and we began purchasing SOFR-linked MBS in the second quarter of 2021.

The following table presents our LIBOR-indexed Advances, investment securities and derivatives at March 31, 2021. At March 31, 2021, all of our variable rate Consolidated Obligations were linked to SOFR.

(In millions)	Maturing on or before June 30, 2023	Maturing after June 30, 2023
LIBOR-Indexed Variable Rate Financial Instruments		
Advances by redemption term	$ 2,422	$ 3,011
MBS by contractual maturity [1]	—	5,633
Total principal amount	$ 2,422	$ 8,644
Derivatives, notional amount by termination date	$ 6,838	$ 4,679

(1) MBS are presented by contractual maturity; however, their expected maturities will likely differ from contractual maturities as borrowers may have the right to call or prepay obligations with or without call or prepayment fees.

The market transition away from LIBOR towards SOFR is gradual and complicated, including the possible development of term structures and credit adjustments to accommodate differences between LIBOR and SOFR. As such, we are not currently able to predict the ultimate impact of such a transition on our business, financial condition, and results of operations.

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)	March 31, 2021		December 31, 2020		March 31, 2020	
	Balance	Percent[1]	Balance	Percent[1]	Balance	Percent[1]
Adjustable/Variable-Rate Indexed:						
LIBOR	$ 5,433	22 %	$ 5,611	22 %	$28,889	36 %
SOFR	118	1	118	1	2,000	3
Other	16	—	82	—	247	—
Total	5,567	23	5,811	23	31,136	39
Fixed-Rate:						
Repurchase based (REPO)	3,787	16	3,780	15	28,058	35
Regular Fixed-Rate	9,047	37	9,587	38	14,452	18
Putable [2]	2,657	11	2,657	11	3,164	4
Amortizing/Mortgage Matched	1,872	8	2,021	8	2,439	3
Other	1,227	5	1,151	5	680	1
Total	18,590	77	19,196	77	48,793	61
Total Advances Principal	$24,157	100 %	$25,007	100 %	$79,929	100 %
Letters of Credit (notional)	$33,650		$28,812		$15,785	

(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.

Advance principal balances at March 31, 2021 decreased three percent compared to year-end 2020. Advance balances remained low similar to year-end 2020 as members have experienced an inflow of deposits on their balance sheets, while also having access to other liquidity sources as a result of certain government actions related to the pandemic. As shown in the table above, Advance balances in the first quarter of 2020 were significantly higher as members sought additional liquidity during the onset of the pandemic. Most of these Advances matured or were prepaid by the end of 2020.

Advance Usage

In addition to analyzing Advance balances by dollar trends, we monitor the degree to which members use Advances to fund their balance sheets. The following table shows the unweighted, average ratio of each member's Advance balance to its most-recently available figures for total assets.

	March 31, 2021	December 31, 2020
Average Advances-to-assets for members		
Assets less than $1.0 billion (505 members)	1.66 %	1.99 %
Assets over $1.0 billion (120 members)	1.81	2.11
All members	1.69	2.01

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

(Dollars in millions)

March 31, 2021			December 31, 2020		
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.	$ 4,273	18 %	U.S. Bank, N.A.	$ 4,273	17 %
Third Federal Savings and Loan Association	3,292	14	Third Federal Savings and Loan Association	3,443	14
Protective Life Insurance Company	2,285	9	Nationwide Life Insurance Company	2,062	8
Nationwide Life Insurance Company	2,036	8	Protective Life Insurance Company	1,955	8
Western-Southern Life Assurance Co.	1,477	6	Western-Southern Life Assurance Co.	1,344	5
Total of Top 5	$ 13,363	55 %	Total of Top 5	$ 13,077	52 %

Advance concentration ratios are influenced by, and generally similar to, concentration ratios of financial activity among our Fifth District financial institutions. We believe that having large financial institutions that actively use our Mission Assets augments the value of membership to all members. For example, such activity improves our operating efficiency, increases our earnings and thereby contributions to housing and community investment programs. This activity may enable us to obtain more favorable funding costs, and helps us maintain competitively priced Mission Assets.

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

The table below shows principal purchases and reductions of loans in the MPP for the first three months of 2021. All loans acquired in the first three months of 2021 were conventional loans.

(In millions)	MPP Principal
Balance at December 31, 2020	$ 9,316
Principal purchases	241
Principal reductions	(1,166)
Balance at March 31, 2021	$ 8,391

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 increased in the first three months of 2021 to a 39 percent annual constant prepayment rate, compared to the 30 percent rate for all of 2020, driven by the historically low mortgage rates. However, our purchases of new loans were much lower than the level of repayments during the first three months of 2021. Although MPP yields on purchases of new loans continued to offer favorable returns, the lack of volume that met our risk adjusted return criteria along with other balance sheet concentration considerations prevented us from purchasing new loans to fully replace repayments received.

Overall, MPP yields on existing portfolio balances, net of funding and hedging costs, have declined and are expected to remain at lower levels in the short-term due to the increased prepayment speeds noted above. Despite the lower yields on existing MPP balances, the metrics of portfolio return relative to their market and credit risks continue to indicate that the MPP has generated, and can be expected to continue to generate, a profitable long-term, risk-adjusted return.

Investments

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

(In millions)	Three Months Ended March 31, 2021		Year Ended December 31, 2020	
	Ending Balance	Average Balance	Ending Balance	Average Balance
Liquidity investments	$ 15,196	$ 19,104	$ 17,285	$ 20,548
MBS	9,013	9,425	9,756	11,864
Other investments (1)	—	331	—	459
Total investments	$ 24,209	$ 28,860	$ 27,041	$ 32,871

(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 can be easily sold and converted to cash. 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, liquidity needs, the availability of acceptable net spreads, and the number of eligible counterparties that meet our unsecured credit risk criteria.

The balance of liquidity investments was lower at March 31, 2021 compared to year-end 2020 as the higher level of liquidity at year-end 2020 in anticipation of volatile market conditions reverted back to more normal levels. We also held some of our liquidity portfolio as deposits at the Federal Reserve at the end of the first quarter in light of limited returns on other available liquidity investments. At March 31, 2021, we held $3.1 billion in deposits at the Federal Reserve, which are reflected in cash and due from banks on the Statements of Condition. The average balance of liquidity investments for the three months ended March 31, 2021 only fell slightly from the average balance for all of 2020 as we continued to hold longer-term U.S. Treasury obligations to help meet regulatory liquidity requirements. Under the regulatory requirements, liquidity includes certain high-quality liquid assets, which are defined as U.S. Treasury obligations with remaining maturities of 10 years or less held as trading securities or available-for-sale securities.

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 2.22 at March 31, 2021. The MBS ratio was lower than normal primarily due to the decline in MBS balances given paydowns in the low interest rate environment and the regulatory limitations regarding the purchase of investments that reference LIBOR. Given these limitations, we have not been able to replace the prepaid MBS with suitable alternatives that we believe provide an acceptable risk/return tradeoff.

The balance of MBS at March 31, 2021 consisted of $8.1 billion of securities issued by Fannie Mae or Freddie Mac (of which $5.6 billion were floating-rate securities), and $0.9 billion of securities issued by Ginnie Mae (which are primarily fixed rate).

The table below shows principal paydowns of our MBS for the first three months of 2021.

(In millions)	MBS Principal
Balance at December 31, 2020	$ 9,745
Principal paydowns	(736)
Balance at March 31, 2021	$ 9,009

MBS principal paydowns in the first three months of 2021 equated to a 27 percent annual constant prepayment rate, the same rate experienced in 2020. The elevated prepayment rates experienced in the first three months of 2021 and all of 2020 is a result of the historically low mortgage rate environment.

Consolidated Obligations

We 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. 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 positive liquidity and asset/liability maturity funding gap requirements discussed in the "Liquidity Risk" section of "Quantitative and Qualitative Disclosures About Risk Management."

The table below presents the ending and average balances of our participations in Consolidated Obligations.

(In millions)	Three Months Ended March 31, 2021		Year Ended December 31, 2020	
	Ending Balance	Average Balance	Ending Balance	Average Balance
Discount Notes:				
Unswapped	$ 25,853	$ 26,520	$ 27,503	$ 39,478
Swapped	1,020	133	—	3,843
Total par Discount Notes	26,873	26,653	27,503	43,321
Other items [1]	—	(2)	(3)	(37)
Total Discount Notes	26,873	26,651	27,500	43,284
Bonds:				
Unswapped fixed-rate	18,283	17,524	18,940	21,288
Unswapped adjustable-rate [2]	8,838	11,045	10,639	13,394
Swapped fixed-rate	649	1,544	2,372	3,547
Total par Bonds	27,770	30,113	31,951	38,229
Other items [1]	28	37	46	68
Total Bonds	27,798	30,150	31,997	38,297
Total Consolidated Obligations [3]	$ 54,671	$ 56,801	$ 59,497	$ 81,581

(1) Includes unamortized premiums/discounts, fair value option valuation adjustments, hedging and other basis adjustments.
(2) At March 31, 2021 and December 31, 2020, all unswapped adjustable-rate Bonds were indexed to SOFR.
(3) 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 millions) $696,385 and $746,772 at March 31, 2021 and December 31, 2020, respectively.

The ending balance of Discount Notes at March 31, 2021 was similar to the balance at year-end 2020 given that short-term and variable-rate Advance balances had little change. The average balance of Discount Notes in the first three months of 2021 was significantly lower compared to the average for all of 2020 due to the growth in short-term and variable-rate Advances in the first quarter of 2020 as members sought additional liquidity during the onset of the COVID-19 pandemic. However, most of these Advances matured or prepaid by the end of 2020 and the demand for Advances has remained low.

The average balance of unswapped fixed-rate Bonds, which typically have initial maturities greater than one year, declined in the first three months of 2021 compared to the average balance in 2020 due to terminating higher coupon fixed-rate Bonds with embedded options as interest rates fell.

Deposits

Total deposits with us are normally a relatively minor source of low-cost funding. Total interest-bearing deposits at March 31, 2021 were $1.4 billion, an increase of $0.1 billion from year-end 2020.

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)	Three Months Ended March 31, 2021		Year Ended December 31, 2020	
	Period End	Average	Period End	Average
GAAP and Regulatory Capital				
GAAP Capital Stock	$ 2,748	$ 2,575	$ 2,641	$ 3,567
Mandatorily Redeemable Capital Stock	15	19	19	55
Regulatory Capital Stock	2,763	2,594	2,660	3,622
Retained Earnings	1,309	1,306	1,304	1,228
Regulatory Capital	$ 4,072	$ 3,900	$ 3,964	$ 4,850

	Three Months Ended March 31, 2021		Year Ended December 31, 2020	
	Period End	Average	Period End	Average
GAAP and Regulatory Capital-to-Assets Ratio				
GAAP	6.67 %	6.13 %	6.02 %	5.39 %
Regulatory [(1)]	6.72	6.18	6.07	5.47

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

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

A portion of our capital stock is excess, meaning it is not required as a condition to being a member and is not currently capitalizing Mission Asset Activity. Excess capital stock provides a base of capital to manage financial leverage at prudent levels, augments loss protections for bondholders, and may be used to capitalize a portion of growth in Mission Assets. Prior to January 1, 2021, if an individual member's excess stock reached zero, our Capital Plan had permitted us, with certain limits, to capitalize additional Mission Asset Activity of that member with excess stock owned by other members (cooperative capital). Effective with the most recently amended Capital Plan, members are not able to use this cooperative capital for marginal new business after January 1, 2021. At March 31, 2021, the amount of excess stock, as defined by our Capital Plan, was $372 million, an increase of $144 million from year-end 2020. The balance of excess stock grew due to the requirement to purchase additional capital stock for short-term Advance borrowings during the quarter, rather than using cooperative capital.

Membership and Stockholders

In the first three months of 2021, we added two new member stockholders and lost five member stockholders, ending the quarter at 625 member stockholders. The decline in membership during the first three months of 2021 was primarily attributable to intra-district merger activity.

RESULTS OF OPERATIONS

Components of Earnings and Return on Equity

The following table is a summary income statement for the three months ended March 31, 2021 and 2020. 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 March 31,			
	2021		2020	
	Amount	ROE [1]	Amount	ROE [1]
Net interest income	$ 76	7.96 %	$ 82	7.15 %
Non-interest income (loss):				
Net gains (losses) on investment securities	(139)	(14.56)	373	32.43
Net gains (losses) on derivatives and hedging activities	97	10.19	(294)	(25.60)
Net gains (losses) on financial instruments held under fair value option	4	0.41	(51)	(4.43)
Other non-interest income, net	6	0.65	3	0.27
Total non-interest income (loss)	(32)	(3.31)	31	2.67
Total income	44	4.65	113	9.82
Non-interest expense	23	2.47	24	2.11
Affordable Housing Program assessments	2	0.22	9	0.77
Net income	$ 19	1.96 %	$ 80	6.94 %

(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 March 31,			
	2021		2020	
	Amount	% of Earning Assets	Amount	% of Earning Assets
Components of net interest rate spread:				
Net (amortization)/accretion [1] [2]	$ (28)	(0.19)%	$ (22)	(0.09)%
Prepayment fees on Advances, net [2]	1	0.01	4	0.02
Other components of net interest rate spread	96	0.62	81	0.35
Total net interest rate spread	69	0.44	63	0.28
Earnings from funding assets with interest-free capital	7	0.05	19	0.08
Total net interest income/net interest margin [3]	$ 76	0.49 %	$ 82	0.36 %

(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. When mortgage rates decrease, premium amortization of mortgage assets generally increases, which reduces net interest income. Amortization in the three months ended March 31, 2021 increased compared to

the same period in 2020 primarily due to the historically low mortgage rates, which led to accelerated prepayments of mortgage assets in the first three months of 2021. The $11 million increase in amortization from mortgage assets was partially offset by a $5 million decrease in amortization on Consolidated Obligations. Amortization on Consolidated Obligations was elevated in the first three months of 2020 as we terminated higher coupon fixed-rate Bonds as interest rates fell.

Prepayment Fees on Advances: Fees for members' 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 months ended March 31, 2021. The higher Advance prepayment fees in the first three months of 2020 was due to a higher amount of member prepayments of Advances as interest rates declined.

Other Components of Net Interest Rate Spread: The total other components of net interest rate spread increased $15 million in the first three months of 2021 compared to the same period in 2020. The net increase was primarily due to the factors below.

- **Higher spreads on shorter-term and floating-rate asset balances-*Favorable*:** Higher spreads on shorter-term and floating-rate assets improved net interest income by an estimated $33 million as the rates on the debt funding these assets declined. However, the increase in net interest income was offset by lower non-interest income (loss) primarily due to an increase of $33 million in the net interest settlements being paid on related derivatives not receiving hedge accounting.
- **Unrealized gains on designated fair value hedges-*Favorable*:** Net unrealized gains on hedged items and derivatives in qualifying fair value hedge relationships improved net interest income by $19 million.
- **Lower spreads earned on mortgage assets-*Unfavorable*:** Lower spreads on the mortgage assets portfolio decreased net interest income by an estimated $13 million. The lower spreads were driven by the decline in average long-term interest rates, which accelerated the prepayments of higher-yielding mortgages.
- **Lower average balances of mortgage assets-*Unfavorable*:** The $3.6 billion decrease in the average balance of mortgage-backed securities and the $2.7 billion decrease in the average balance of mortgage loans held for portfolio lowered net interest income by an estimated $12 million. Mortgage balances declined due to the acceleration of principal cash flows driven by historically low mortgage interest rates.
- **Lower average Advance balances-*Unfavorable*:** The $18.8 billion decrease in the average balance of Advances lowered net interest income by an estimated $9 million.
- **Lower average balances of liquidity investments-*Unfavorable*:** The $4.8 billion decrease in the average balance of liquidity investments lowered net interest income by an estimated $3 million.

Earnings from Capital: Earnings from capital decreased $12 million in the three months ended March 31, 2021 compared to the same period in 2020 primarily due to average short-term rates declining more than 115 basis points as the Federal Reserve responded to the evolving risks to economic activity at the onset of the COVID-19 pandemic and has continued to keep rates low.

Average Balance Sheet and Rates

The following table provides 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 associated with derivatives in a fair value hedge relationship are included in net interest income and interest rate spread. However, if the derivatives do not qualify for fair value hedge accounting, the related net interest settlements of interest receivables or payables are recorded in "Non-interest income (loss)" as "Net gains (losses) on derivatives and hedging activities" 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.

(Dollars in millions)	Three Months Ended March 31, 2021			Three Months Ended March 31, 2020		
	Average Balance	Interest	Average Rate [1]	Average Balance	Interest	Average Rate [1]
Assets:						
Advances	$ 24,546	$ 43	0.70 %	$ 43,299	$ 176	1.64 %
Mortgage loans held for portfolio [2]	9,096	44	1.98	11,767	89	3.05
Federal funds sold and securities purchased under resale agreements	8,123	2	0.08	10,615	39	1.47
Interest-bearing deposits in banks [3] [4] [5]	864	—	0.10	1,793	7	1.45
MBS [4]	9,421	31	1.32	13,051	68	2.10
Other investments [4]	10,446	58	2.27	11,902	68	2.31
Loans to other FHLBanks	—	—	—	20	—	1.22
Total interest-earning assets	62,496	178	1.15	92,447	447	1.95
Other assets	569			924		
Total assets	$ 63,065			$ 93,371		
Liabilities and Capital:						
Term deposits	$ 109	—	0.34	$ 32	—	1.86
Other interest bearing deposits [5]	1,354	—	0.02	1,040	3	1.09
Discount Notes	26,651	5	0.08	49,696	176	1.43
Unswapped fixed-rate Bonds	17,544	88	2.03	21,471	131	2.44
Unswapped adjustable-rate Bonds	11,045	3	0.10	10,819	35	1.32
Swapped Bonds	1,561	6	1.48	4,800	20	1.69
Mandatorily redeemable capital stock	19	—	2.01	52	—	1.47
Other borrowings	—	—	—	—	—	—
Total interest-bearing liabilities	58,283	102	0.71	87,910	365	1.67
Non-interest bearing deposits	—			10		
Other liabilities	914			833		
Total capital	3,868			4,618		
Total liabilities and capital	$ 63,065			$ 93,371		
Net interest rate spread			0.44 %			0.28 %
Net interest income and net interest margin [6]		$ 76	0.49 %		$ 82	0.36 %
Average interest-earning assets to interest-bearing liabilities			107.23 %			105.16 %

(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) Non-accrual loans are included in average balances used to determine average rate.
(3) Includes certificates of deposit that are classified as available-for-sale securities.
(4) 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.
(5) 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.
(6) Net interest margin is net interest income as a percentage of average total interest-earning assets.

Rates on nearly all of our interest-bearing assets and liabilities decreased in the three months ended March 31, 2021 compared to the same period in 2020 due to the decline in market interest rates. Average rates on short-term assets and liabilities declined more notably as they repriced quicker to lower 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 March 31, 2021 over 2020		
	Volume [1][3]	Rate [2][3]	Total
Increase (decrease) in interest income			
Advances	$ (57)	$ (76)	$ (133)
Mortgage loans held for portfolio	(18)	(27)	(45)
Federal funds sold and securities purchased under resale agreements	(7)	(30)	(37)
Interest-bearing deposits in banks	(3)	(4)	(7)
MBS	(16)	(21)	(37)
Other investments	(8)	(2)	(10)
Loans to other FHLBanks	—	—	—
Total	(109)	(160)	(269)
Increase (decrease) in interest expense			
Term deposits	—	—	—
Other interest-bearing deposits	1	(4)	(3)
Discount Notes	(57)	(114)	(171)
Unswapped fixed-rate Bonds	(22)	(21)	(43)
Unswapped adjustable-rate Bonds	1	(33)	(32)
Swapped Bonds	(12)	(2)	(14)
Mandatorily redeemable capital stock	—	—	—
Other borrowings	—	—	—
Total	(89)	(174)	(263)
Increase (decrease) in net interest income	$ (20)	$ 14	$ (6)

(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 table shows 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 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)	Three Months Ended March 31,	
	2021	2020
Advances:		
Gains (losses) on designated fair value hedges	$ 4	$ (14)
Net interest settlements included in net interest income	(33)	(2)
Investment securities:		
Gains (losses) on designated fair value hedges	1	—
Net interest settlements included in net interest income	(1)	—
Mortgage loans:		
Amortization of derivative fair value adjustments in net interest income	(4)	(1)
Increase (decrease) to net interest income	$ (33)	$ (17)

Most of our use of derivatives is to synthetically convert the fixed interest rates on certain Advances, investments and Consolidated Obligations to adjustable rates tied to an eligible benchmark rate (e.g., LIBOR, the Federal funds effective rate, or SOFR). The negative net effect of derivatives on net interest income in the first three months of 2021 was primarily due to lower short-term benchmark interest rates in the first quarter of 2021 compared to the same period of 2020, which resulted in higher net interest settlements being paid on certain Advances where the fixed interest rates were converted to adjustable-coupon rates. The fluctuation in earnings from the use of derivatives was acceptable because it enabled us to lower market risk exposure by matching actual cash flows between assets and liabilities more closely and efficiently than would otherwise occur.

Non-Interest Income (Loss)

Non-interest income (loss) consists of certain realized and unrealized 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 relate only to derivatives not qualifying for fair value hedge accounting.

(In millions)	Advances	Investment Securities	Mortgage Loans	Bonds	Discount Notes	Balance Sheet [1]	Other	Total
Three Months Ended March 31, 2021								
Net effect of derivatives and hedging activities								
Gains (losses) on derivatives not receiving hedge accounting	$ 1	$ 143	$ (3)	$ (4)	$ —	$ 4	$ —	$ 141
Net interest settlements on derivatives not receiving hedge accounting	—	(48)	—	4	—	—	—	(44)
Net gains (losses) on derivatives and hedging activities	1	95	(3)	—	—	4	—	97
Gains (losses) on trading securities [2]	—	(139)	—	—	—	—	—	(139)
Gains (losses) on financial instruments held under fair value option [3]	(1)	—	—	5	—	—	—	4
Total net effect on non-interest income	$ —	$ (44)	$ (3)	$ 5	$ —	$ 4	$ —	$ (38)
Three Months Ended March 31, 2020								
Net effect of derivatives and hedging activities								
Gains (losses) on derivatives not receiving hedge accounting	$ (8)	$ (404)	$ (9)	$ 31	$ 14	$ 92	$ —	$ (284)
Net interest settlements on derivatives not receiving hedge accounting	1	(19)	—	—	7	—	—	(11)
Price alignment amount	—	—	—	—	—	—	1	1
Net gains (losses) on derivatives and hedging activities	(7)	(423)	(9)	31	21	92	1	(294)
Gains (losses) on trading securities [2]	—	373	—	—	—	—	—	373
Gains (losses) on financial instruments held under fair value option [3]	—	—	—	(37)	(14)	—	—	(51)
Total net effect on non-interest income	$ (7)	$ (50)	$ (9)	$ (6)	$ 7	$ 92	$ 1	$ 28

(1) Balance sheet includes synthetic basis swaps and swaptions, which are not designated as hedging a specific financial instrument.
(2) Includes only those gains (losses) on trading securities that have an assigned economic derivative; therefore, this line item may not agree to the Statement of Income.
(3) Includes only those gains or losses on financial instruments held at fair value that have an economic derivative "assigned."

The net amount of income volatility in derivatives and hedging activities was moderate and consistent with the close hedging relationships of our derivative transactions. Most of the volatility was a result of both unrealized fair value gains and losses on instruments we expect to hold to maturity and the sale of interest rate swaptions as interest rates fell to historically low levels during the first quarter of 2020. The sales of swaptions in the first quarter of 2020 resulted in net realized gains of approximately $69 million before assessments. We did not sell any interest rate swaptions in the first quarter of 2021. We use swaptions to hedge market risk exposure associated with fixed-rate mortgage assets and may sell swaptions as interest rates change in order to offset actual and anticipated risks associated with holding fixed-rate mortgage assets.

At March 31, 2021, we held $9.6 billion of fixed-rate U.S. Treasury and GSE obligations and swapped them to a variable rate. These investments are classified as trading securities and 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, including 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.

Non-Interest Expense

The following table presents non-interest expense.

(In millions)	Three Months Ended March 31, 2021	Three Months Ended March 31, 2020
Non-interest expense		
Compensation and benefits	$ 13	$ 13
Other operating expense	6	6
Finance Agency	2	2
Office of Finance	1	1
Other	1	2
Total non-interest expense	$ 23	$ 24

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. Accordingly, total non-interest expenses remained stable in the first three months of 2021 compared to the same period in 2020.

Segment Information

Note 13 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 table below summarize each segment's operating results for the periods shown.

(Dollars in millions)	Traditional Member Finance	MPP	Total
Three Months Ended March 31, 2021			
Net interest income (loss)	$ 87	$ (11)	$ 76
Net income (loss)	$ 32	$ (13)	$ 19
Average assets	$ 51,265	$ 11,800	$ 63,065
Assumed average capital allocation	$ 3,144	$ 724	$ 3,868
Return on average assets [1]	0.25 %	(0.46)%	0.12 %
Return on average equity [1]	4.14 %	(7.48)%	1.96 %
Three Months Ended March 31, 2020			
Net interest income	$ 65	$ 17	$ 82
Net income	$ 18	$ 62	$ 80
Average assets	$ 81,339	$ 12,032	$ 93,371
Assumed average capital allocation	$ 4,023	$ 595	$ 4,618
Return on average assets [1]	0.09 %	2.06 %	0.34 %
Return on average equity [1]	1.79 %	41.67 %	6.94 %

(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 increased in the first three months of 2021 compared to the same period in 2020 primarily due to higher spreads earned on liquidity investments and net unrealized gains on derivative and hedging activities. However, these favorable factors were partially offset by lower earnings from funding assets with interest-free capital, the decline in average Advance and MBS balances, and an increase in net interest settlements paid on derivatives not receiving hedge accounting, which are recorded in non-interest income (loss).

MPP Segment
The net loss in the first three months of 2021 compared to net income in same period in 2020 was due to higher net amortization, lower MPP balances, and lower portfolio spreads earned on MPP driven by the low interest rate environment. In addition, the first three months of 2020 significantly benefited from gains due to the sale of interest rate swaptions as rates fell to historically low levels in the first quarter of 2020. We did not sell any swaptions in the first quarter of 2021.

QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT RISK MANAGEMENT

Market Risk

Market Value of Equity and Duration of Equity - Entire Balance Sheet
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). We compiled average results using data for each month end. Given the current level of rates, some down rate shocks are nonparallel scenarios, with short-term rates decreasing less than long-term rates such that no rate falls below zero.

Market Value of Equity

(Dollars in millions)	Down 300	Down 200	Down 100	Flat Rates	Up 100	Up 200	Up 300
Average Results							
2021 Year-to-Date							
Market Value of Equity	$ 3,818	$ 3,825	$ 3,865	$ 3,885	$ 3,838	$ 3,735	$ 3,684
% Change from Flat Case	(1.7)%	(1.6)%	(0.5)%	—	(1.2)%	(3.9)%	(5.2)%
2020 Full Year							
Market Value of Equity	$ 4,541	$ 4,541	$ 4,547	$ 4,624	$ 4,723	$ 4,608	$ 4,466
% Change from Flat Case	(1.8)%	(1.8)%	(1.7)%	—	2.1 %	(0.3)%	(3.4)%
Month-End Results							
March 31, 2021							
Market Value of Equity	$ 4,023	$ 4,038	$ 4,084	$ 4,057	$ 3,977	$ 3,898	$ 3,867
% Change from Flat Case	(0.9)%	(0.5)%	0.7 %	—	(2.0)%	(3.9)%	(4.7)%
December 31, 2020							
Market Value of Equity	$ 3,765	$ 3,765	$ 3,791	$ 3,835	$ 3,893	$ 3,777	$ 3,676
% Change from Flat Case	(1.8)%	(1.8)%	(1.1)%	—	1.5 %	(1.5)%	(4.2)%

Duration of Equity

(In years)	Down 300	Down 200	Down 100	Flat Rates	Up 100	Up 200	Up 300
Average Results							
2021 Year-to-Date	(0.2)	(0.6)	(1.3)	0.5	2.5	2.1	0.3
2020 Full Year	—	—	(0.9)	(2.6)	1.0	3.4	2.0
Month-End Results							
March 31, 2021	(0.4)	(0.8)	(1.0)	2.3	2.3	1.1	0.2
December 31, 2020	—	(0.1)	(1.4)	(2.3)	1.8	3.2	1.2

The overall market risk exposure to changing interest rates was within policy limits during the periods presented. At March 31, 2021, exposure to falling interest rates in the down shock scenarios was muted as some rates become floored at near zero rate levels. Exposure to moderate rising rate shocks increased marginally due primarily to the increase in long-term interest rates

that occurred in the first quarter of 2021. The duration of equity provides an estimate of the change in market value of equity for a 1.00 percentage point further change in interest rates from the rate shock level.

Based on the totality of our risk analysis, we expect that profitability, defined as the level of ROE compared with short-term market rates, will remain competitive over the long term unless interest rates change by large amounts in a short period of time. Declines in long-term interest rates could substantially decrease income in the near term (one to two years) before reverting over time to average levels. This temporary reduction in income would be driven by additional recognition of mortgage asset premiums as the further incentive for borrowers to refinance results in faster than anticipated repayments of those mortgage assets.

Market Risk Exposure of the Mortgage Assets Portfolio

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. Sensitivities of the market value of equity allocated to the mortgage assets portfolio under interest rate shocks (in basis points) are shown below. The average mortgage assets portfolio had an assumed capital allocation of $1.1 billion in the first three months of 2021 based on the entire balance sheet's average regulatory capital-to-assets ratio. Average results shown in the table below are compiled using data for each month end. The market value sensitivities are one measure we use to analyze the portfolio's estimated market risk exposure.

% Change in Market Value of Equity-Mortgage Assets Portfolio

	Down 300	Down 200	Down 100	Flat Rates	Up 100	Up 200	Up 300
Average Results							
2021 Year-to-Date	(17.6)%	(16.1)%	(8.7)%	—	0.4 %	(4.7)%	(5.3)%
2020 Full Year	(15.9)%	(15.9)%	(14.6)%	—	11.9 %	2.4 %	(10.3)%
Month-End Results							
March 31, 2021	(16.5)%	(12.8)%	(4.4)%	—	(3.2)%	(6.6)%	(5.6)%
December 31, 2020	(15.3)%	(15.3)%	(11.3)%	—	10.6 %	3.9 %	(1.7)%

The average risk exposure of the mortgage assets portfolio in the first three months of 2021 remained aligned with our preference to keep our exposure to market risk at a low to moderate level. The variances between periods primarily reflect the impact of higher long-term interest rates observed in the first three months of 2021. These higher long-term interest rates resulted in marginally higher exposure to rising rate shocks and less exposure to falling rate shocks before they become floored when they reach near zero rate levels. We believe the mortgage asset 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. We regularly conduct a variety of measurements and assessments for capital adequacy. At March 31, 2021, our capital management policy set forth approximately $260 million as the minimum amount of retained earnings we believe is necessary to mitigate impairment risk.

The following table presents retained earnings.

(In millions)	March 31, 2021	December 31, 2020
Unrestricted retained earnings	$ 804	$ 803
Restricted retained earnings [1]	505	501
Total retained earnings	$ 1,309	$ 1,304

(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.

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

	March 31, 2021	December 31, 2020
Market Value of Equity to Par Value of Regulatory Capital Stock - Base Case (Flat Rates) Scenario	147 %	144 %
Market Value of Equity to Par Value of Regulatory Capital Stock - Down Shock [(1)]	148	143
Market Value of Equity to Par Value of Regulatory Capital Stock - Up Shock [(2)]	141	142

(1) Represents a down shock of 100 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 three months of 2021, the market capitalization ratios in the scenarios presented continued to be above our policy requirements. The base case ratio at March 31, 2021 was well above 100 percent because retained earnings were 47 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.

	March 31, 2021	December 31, 2020
Market Value of Equity to Book Value of Capital - Base Case (Flat Rates) Scenario [(1)]	100 %	97 %
Market Value of Equity to Book Value of Capital - Down Shock [(1)(2)]	101	96
Market Value of Equity to Book Value of Capital - Up Shock [(1)(3)]	96	96

(1) Capital includes total capital and mandatorily redeemable capital stock.
(2) Represents a down shock of 100 basis points.
(3) Represents an up shock of 200 basis points.

A base-case value below 100 percent indicates 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. In a scenario in which interest rates increase 200 basis points, the market value of total capital would be $162 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; and therefore, we accept the risk of diluting equity ownership in such a scenario.

Credit Risk

Overview

Our business entails a significant amount of inherent credit risk exposure. We believe our risk management practices, discussed below, minimize residual credit risk levels. We have no loan loss reserves or impairment recorded for Credit Services, investments and derivatives. We have a minimal amount of legacy credit risk exposure in the MPP.

Credit Services

Overview: We have policies and practices to manage credit risk exposure from our secured lending activities, which include Advances and Letters of Credit. 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.

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, along with 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 March 31, 2021, total collateral pledged of $415.3 billion resulted in total borrowing capacity of $330.4 billion of which $57.8 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 haircut. LVRs are determined by 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.

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.

Member Failures, Closures, and Receiverships: There have been no member failures in 2021 through the date of this filing.

MPP

Overview: The residual amount of credit risk exposure to loans in the MPP is minimal, based on the same factors described in the 2020 Annual Report on Form 10-K. In light of the COVID-19 pandemic, we are closely monitoring the credit risk of our MPP portfolio. Although we may see further increases in delinquencies due to the current unemployment level, we cannot predict the overall impact. However, we have implemented temporary relief provisions for MPP loans, including forbearance plans to help with short-term hardships, in response to the negative economic impacts associated with COVID-19.

Conventional Loan Portfolio Characteristics: The levels of loan-to-value ratios are consistent with the portfolio's excellent credit quality. At March 31, 2021, the weighted average loan-to-value ratios for conventional loans based on origination values and estimated current values were 73 percent and 53 percent, respectively. The estimated weighted average current loan-to-value ratio decreased two percent compared to the ratio at December 31, 2020 as home values have continued to increase.

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.

	Conventional Loan Delinquencies	
(Dollars in millions)	March 31, 2021	December 31, 2020
Early stage delinquencies - unpaid principal balance [(1)]	$ 44	$ 49
Serious delinquencies - unpaid principal balance [(2)]	$ 57	$ 64
Early stage delinquency rate [(3)]	0.5 %	0.5 %
Serious delinquency rate [(4)]	0.7 %	0.7 %
National average serious delinquency rate [(5)]	3.5 %	3.7 %

(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 March 31, 2021 rate is based on December 31, 2020 data.

In response to the COVID-19 pandemic, our mortgage loan servicers may grant a forbearance period to borrowers who have had COVID-19 related hardships such as illness, unemployment or loss of income when homeowners meet certain eligibility requirements. These forbearances do not alter the underlying terms of the loans, and loans not paid timely are considered past due. As a result, early stage and serious delinquencies were elevated at March 31, 2021 and December 31, 2020 compared to prior periods. At March 31, 2021, $9 million and $41 million of conventional loans with an early stage and serious delinquency, respectively, were under a forbearance plan.

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 supported against credit losses by various combinations of primary mortgage insurance (PMI), supplemental mortgage insurance (SMI) (for loans purchased before February 2011), and the Lender Risk Account (LRA). The LRA is a hold back of a portion of the initial purchase price to cover expected credit losses for a specific pool of loans. 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 loan pools 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 balances of $247 million and $246 million at March 31, 2021 and December 31, 2020, 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, including PMI, the LRA, and SMI. Our available credit enhancements at March 31, 2021 were ample and able to cover nearly all of the estimated gross credit losses. As a result, estimated credit losses at March 31, 2021 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). In addition, we have assessed that we do not have any credit risk exposure to our PMI providers, and our estimation of credit exposure to SMI providers was not material at March 31, 2021 or December 31, 2020.

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 adverse macroeconomic scenarios, including the increased delinquencies as a result of COVID-19 related forbearances, we expect that further credit losses would not significantly decrease profitability.

Investments

Liquidity Investments: We purchase liquidity investments from counterparties that have a strong ability to repay principal and interest. These investments can be easily 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 debt securities of highly rated, investment-grade 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.

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. For resale agreements, the ratings shown are based on ratings of the associated collateral. Our internal ratings of these investments may differ from those obtained from Standard & Poor's, Moody's, and/or Fitch Advisory Services. The historical or current ratings displayed in this table should not be taken as an indication of future ratings.

(In millions)	March 31, 2021		
	Long-Term Rating		
	AA	A	Total
Unsecured Liquidity Investments			
Interest-bearing deposits	$ —	$ 340	$ 340
Federal funds sold	1,760	3,045	4,805
Total unsecured liquidity investments	1,760	3,385	5,145
Guaranteed/Secured Liquidity Investments			
Securities purchased under agreements to resell	288	—	288
U.S. Treasury obligations	7,614	—	7,614
GSE obligations	2,149	—	2,149
Total guaranteed/secured liquidity investments	10,051	—	10,051
Total liquidity investments	$ 11,811	$ 3,385	$ 15,196

	December 31, 2020		
	Long-Term Rating		
	AA	A	Total
Unsecured Liquidity Investments			
Interest-bearing deposits	$ —	$ 555	$ 555
Federal funds sold	500	3,740	4,240
Total unsecured liquidity investments	500	4,295	4,795
Guaranteed/Secured Liquidity Investments			
Securities purchased under agreements to resell	1,818	—	1,818
U.S. Treasury obligations	8,404	—	8,404
GSE obligations	2,268	—	2,268
Total guaranteed/secured liquidity investments	12,490	—	12,490
Total liquidity investments	$ 12,990	$ 4,295	$ 17,285

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 historical or current ratings displayed in this table should not be taken as an indication of future ratings.

(In millions)	March 31, 2021		
	Counterparty Rating		
Domicile of Counterparty	AA	A	Total
Domestic	$ —	$ 340	$ 340
U.S. branches and agency offices of foreign commercial banks:			
Canada	680	680	1,360
Australia	—	680	680
Finland	680	—	680
Netherlands	—	680	680
Sweden	—	680	680
Norway	400	—	400
Germany	—	225	225
France	—	100	100
Total U.S. branches and agency offices of foreign commercial banks	1,760	3,045	4,805
Total unsecured investment credit exposure	$ 1,760	$ 3,385	$ 5,145

The following table presents the remaining contractual maturity 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.

(In millions)	March 31, 2021	
Domicile of Counterparty	Overnight	Total
Domestic	$ 340	$ 340
U.S. branches and agency offices of foreign commercial banks:		
Canada	1,360	1,360
Australia	680	680
Finland	680	680
Netherlands	680	680
Sweden	680	680
Norway	400	400
Germany	225	225
France	100	100
Total U.S. branches and agency offices of foreign commercial banks	4,805	4,805
Total unsecured investment credit exposure	$ 5,145	$ 5,145

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 March 31, 2021, $8.1 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 and that the securities issued by these two GSEs are effectively government guaranteed. In addition, based on the data available to us and our purchase practices, we believe that most of the mortgage loans backing our GSE MBS are of high quality with acceptable credit performance.

MBS Issued by Other Government Agencies
We also invest in MBS issued and guaranteed by Ginnie Mae. These investments totaled $0.9 billion at March 31, 2021. 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 March 31, 2021. The historical or current 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	Net Credit Exposure to Counterparties
Nonmember counterparties:				
Asset positions with credit exposure:				
Uncleared derivatives:				
A-rated	$ 515	$ —	$ —	$ —
Total uncleared derivatives	515	—	—	—
Cleared derivatives [1]	17,438	6	188	194
Liability positions with credit exposure:				
Uncleared derivatives:				
A-rated	980	(8)	8	—
BBB-rated	2,535	(90)	91	1
Total uncleared derivatives	3,515	(98)	99	1
Cleared derivatives [1]	699	—	2	2
Total derivative positions with credit exposure to nonmember counterparties	22,167	(92)	289	197
Member institutions [2]	8	—	—	—
Total	$ 22,175	$ (92)	$ 289	$ 197

(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 Aa3 by Moody's and AA- by Standard & Poor's.
(2) Represents Mandatory Delivery Contracts.

Our exposure to cleared derivatives is primarily associated with the requirement to post initial margin through the clearing agent to the Derivatives Clearing Organizations. We pledge cash 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.

At March 31, 2021, the net exposure of uncleared derivatives with residual credit risk exposure was $1 million. If interest rates rise or the composition of our derivatives change resulting in an increase to our gross exposure to uncleared derivatives, the contractual collateral provisions in these derivatives would limit our net exposure to acceptable levels.

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, more generally, to continue to satisfy the terms and conditions of their derivative contracts with us. As of March 31, 2021, we had $0.4 billion of notional principal of interest rate swaps with a subsidiary of our member, JPMorgan Chase Bank, N.A., which also had outstanding credit services with us. Due to the amount of market value collateralization, we had a de minimis amount of outstanding credit exposure to this counterparty related to interest rate swaps outstanding.

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. Our liquidity position complies 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, the implicit U.S. government backing of our debt, 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 three months of 2021. Our overall ability to effectively fund our operations through debt issuances remained sufficient. Investor demand for System debt was robust in the first three months of 2021, as investors continued to prefer short-term, high-quality money market instruments. We believe the possibility 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 is remote.

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 Statements of Cash Flows, in the first three months of 2021, our portion of the System's debt issuances totaled $48.6 billion for Discount Notes and $9.6 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 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. As of March 31, 2021, our days of positive daily cash balances were within these expectations.

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. As of March 31, 2021, we were operating 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)	March 31, 2021	December 31, 2020
Deposit Reserve Requirement		
Total Eligible Deposit Reserves	$ 36,049	$ 37,185
Total Member Deposits	(1,402)	(1,327)
Excess Deposit Reserves	$ 34,647	$ 35,858

Off-Balance Sheet Arrangements

The following table summarizes our off-balance sheet items at March 31, 2021. For more information, see Note 15 of the Notes to Unaudited Financial Statements.

(In millions)	< 1 year	1 < 3 years	3 < 5 years	> 5 years	Total
Off-balance sheet items [1]					
Standby Letters of Credit	$ 32,361	$ 1,217	$ 71	$ 1	$ 33,650
Standby bond purchase agreements	16	15	—	—	31
Total off-balance sheet items	$ 32,377	$ 1,232	$ 71	$ 1	$ 33,681

(1) Represents notional amount of off-balance sheet obligations.

Member Concentration Risk

We regularly assess concentration risks from business activity. We believe that the concentration of Advance activity is consistent with our risk management philosophy, and the impact of borrower concentration on market risk, credit risk, and operational risk, after considering mitigating controls, is minimal.

Operational Risks

There were no material developments regarding our operational risk exposure during the first three months of 2021.

CRITICAL ACCOUNTING POLICIES AND ESTIMATES

There have been no material changes in the first three months of 2021 to our critical accounting policies and estimates. Our critical accounting policies and estimates are described in detail in our 2020 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

As of March 31, 2021, the FHLB's management, including its principal executive officer and principal financial officer, evaluated the effectiveness of our 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 March 31, 2021, 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

As of March 31, 2021, the FHLB's management, including its principal executive officer and principal financial officer, evaluated 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 March 31, 2021 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 15 - Commitments and Contingencies in Part I, Item I, of this Report.

Item 1A. Risk Factors.

For a discussion of our risk factors, see Part I, Item 1A. "Risk Factors" in our 2020 Annual Report on Form 10-K. There have been no material changes from the risk factors in our 2020 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.

Exhibit Number [1]	Description of exhibit	Document filed or furnished, as indicated below
31.1	Rule 13a-14(a)/15d-14(a) Certification of Principal Executive Officer	Filed Herewith
31.2	Rule 13a-14(a)/15d-14(a) Certification of Principal Financial Officer	Filed Herewith
32	Section 1350 Certifications	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.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized, as of the 6th day of May 2021.

FEDERAL HOME LOAN BANK OF CINCINNATI
(Registrant)

By: /s/ Andrew S. Howell
Andrew S. Howell
President and Chief Executive Officer
(principal executive officer)

By: /s/ Stephen J. Sponaugle
Stephen J. Sponaugle
Executive Vice President - Chief Financial Officer
(principal financial officer)

Exhibit 31.1

RULE 13a-14(a)/15d-14(a) CERTIFICATION

I, Andrew S. Howell, certify that:

1. I have reviewed this quarterly report on Form 10-Q of the Federal Home Loan Bank of Cincinnati;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of the financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: May 6, 2021

/s/ Andrew S. Howell

Andrew S. Howell
President and Chief Executive Officer

Exhibit 31.2

RULE 13a-14(a)/15d-14(a) CERTIFICATION

I, Stephen J. Sponaugle, certify that:

1. I have reviewed this quarterly report on Form 10-Q of the Federal Home Loan Bank of Cincinnati;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

    (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

    (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of the financial statements for external purposes in accordance with generally accepted accounting principles;

    (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

    (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

    (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

    (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: May 6, 2021

/s/ Stephen J. Sponaugle

Stephen J. Sponaugle
Executive Vice President, Chief Financial Officer

Exhibit 32

SECTION 1350 CERTIFICATIONS

In connection with the Quarterly Report of the Federal Home Loan Bank of Cincinnati (the FHLB) on Form 10-Q for the period ended March 31, 2021 as filed with the Securities and Exchange Commission on the date hereof (the Report), each of the undersigned officers certifies, to the best of his knowledge, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the FHLB.

/s/ Andrew S. Howell

Andrew S. Howell
President and Chief Executive Officer
May 6, 2021

/s/ Stephen J. Sponaugle

Stephen J. Sponaugle
Executive Vice President, Chief Financial Officer
May 6, 2021