

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, 2018**

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

(State or other jurisdiction of incorporation or organization)

600 Atrium Two, P.O. Box 598,

Cincinnati, Ohio

(Address of principal executive offices)

31-6000228

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

45201-0598

(Zip Code)

(513) 852-7500

(Registrant's telephone number, including area code)

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 and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted 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 and post such files).

Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, 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 (Do not check if a smaller reporting company)

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

As of April 30, 2018, the registrant had 45,601,414 shares of capital stock outstanding, which included stock classified as mandatorily redeemable. 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.

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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, 2018	December 31, 2017
ASSETS		
Cash and due from banks	\$ 1,853,185	\$ 26,550
Interest-bearing deposits	250	140
Securities purchased under agreements to resell	1,636,078	7,701,929
Federal funds sold	17,775,000	3,650,000
Investment securities:		
Trading securities	725	781
Available-for-sale securities	500,019	899,876
Held-to-maturity securities (includes \$0 and \$0 pledged as collateral at March 31, 2018 and December 31, 2017, respectively, that may be repledged) ^(a)	16,100,460	14,804,970
Total investment securities	16,601,204	15,705,627
Advances (includes \$4,971 and \$15,013 at fair value under fair value option at March 31, 2018 and December 31, 2017, respectively)	63,882,874	69,918,224
Mortgage loans held for portfolio:		
Mortgage loans held for portfolio	9,732,239	9,682,130
Less: allowance for credit losses on mortgage loans	1,068	1,190
Mortgage loans held for portfolio, net	9,731,171	9,680,940
Accrued interest receivable	148,807	128,561
Premises, software, and equipment, net	9,043	8,896
Derivative assets	61,877	60,695
Other assets	9,806	13,652
TOTAL ASSETS	\$ 111,709,295	\$ 106,895,214
LIABILITIES		
Deposits	\$ 683,398	\$ 650,531
Consolidated Obligations:		
Discount Notes	53,089,129	46,210,458
Bonds (includes \$5,966,827 and \$5,577,315 at fair value under fair value option at March 31, 2018 and December 31, 2017, respectively)	51,767,306	54,163,061
Total Consolidated Obligations	104,856,435	100,373,519
Mandatorily redeemable capital stock	28,098	30,031
Accrued interest payable	128,586	128,652
Affordable Housing Program payable	114,564	109,877
Derivative liabilities	3,111	2,893
Other liabilities	426,156	435,198
Total liabilities	106,240,348	101,730,701
Commitments and contingencies		
CAPITAL		
Capital stock Class B putable (\$100 par value); issued and outstanding shares: 45,235 shares at March 31, 2018 and 42,411 shares at December 31, 2017	4,523,490	4,241,140
Retained earnings:		
Unrestricted	621,924	617,034
Restricted	339,564	322,999
Total retained earnings	961,488	940,033
Accumulated other comprehensive loss	(16,031)	(16,660)
Total capital	5,468,947	5,164,513
TOTAL LIABILITIES AND CAPITAL	\$ 111,709,295	\$ 106,895,214

(a) Fair values: \$15,860,830 and \$14,682,329 at March 31, 2018 and December 31, 2017, 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,	
	2018	2017
INTEREST INCOME:		
Advances	\$ 318,421	\$ 181,253
Prepayment fees on Advances, net	40	347
Interest-bearing deposits	103	16
Securities purchased under agreements to resell	6,957	4,726
Federal funds sold	34,738	10,450
Investment securities:		
Trading securities	5	4
Available-for-sale securities	3,279	1,782
Held-to-maturity securities	82,920	72,755
Total investment securities	86,204	74,541
Mortgage loans held for portfolio	77,746	72,437
Loans to other FHLBanks	20	—
Total interest income	524,229	343,770
INTEREST EXPENSE:		
Consolidated Obligations:		
Discount Notes	181,371	56,649
Bonds	222,468	182,613
Total Consolidated Obligations	403,839	239,262
Deposits	1,885	764
Mandatorily redeemable capital stock	445	471
Total interest expense	406,169	240,497
NET INTEREST INCOME	118,060	103,273
NON-INTEREST (LOSS) INCOME:		
Net losses on trading securities	(2)	(3)
Net gains (losses) on financial instruments held under fair value option	19,725	(6,061)
Net losses on derivatives and hedging activities	(26,373)	(8,116)
Other, net	2,793	3,467
Total non-interest (loss) income	(3,857)	(10,713)
NON-INTEREST EXPENSE:		
Compensation and benefits	12,693	11,048
Other operating expenses	5,128	5,162
Finance Agency	1,564	1,640
Office of Finance	1,337	1,102
Other	1,402	1,114
Total non-interest expense	22,124	20,066
INCOME BEFORE ASSESSMENTS	92,079	72,494
Affordable Housing Program assessments	9,252	7,296
NET INCOME	\$ 82,827	\$ 65,198

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,	
	2018	2017
Net income	\$ 82,827	\$ 65,198
Other comprehensive income adjustments:		
Net unrealized gains (losses) on available-for-sale securities	143	(26)
Pension and postretirement benefits	486	342
Total other comprehensive income adjustments	629	316
Comprehensive income	\$ 83,456	\$ 65,514

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, 2016	41,569	\$ 4,156,944	\$ 574,122	\$ 260,285	\$ 834,407	\$ (13,256)	\$ 4,978,095
Comprehensive income			52,158	13,040	65,198	316	65,514
Proceeds from sale of capital stock	183	18,291					18,291
Net shares reclassified to mandatorily redeemable capital stock	(16)	(1,594)					(1,594)
Cash dividends on capital stock			(46,847)		(46,847)		(46,847)
BALANCE, MARCH 31, 2017	41,736	\$ 4,173,641	\$ 579,433	\$ 273,325	\$ 852,758	\$ (12,940)	\$ 5,013,459
BALANCE, DECEMBER 31, 2017	42,411	\$ 4,241,140	\$ 617,034	\$ 322,999	\$ 940,033	\$ (16,660)	\$ 5,164,513
Comprehensive income			66,262	16,565	82,827	629	83,456
Proceeds from sale of capital stock	2,824	282,415					282,415
Net shares reclassified to mandatorily redeemable capital stock	—	(65)					(65)
Cash dividends on capital stock			(61,372)		(61,372)		(61,372)
BALANCE, MARCH 31, 2018	45,235	\$ 4,523,490	\$ 621,924	\$ 339,564	\$ 961,488	\$ (16,031)	\$ 5,468,947

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,	
	2018	2017
OPERATING ACTIVITIES:		
Net income	\$ 82,827	\$ 65,198
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization	21,327	8,079
Net change in derivative and hedging activities	36,698	7,222
Net change in fair value adjustments on trading securities	2	3
Net change in fair value adjustments on financial instruments held under fair value option	(19,725)	6,061
Net change in:		
Accrued interest receivable	(20,247)	(2,630)
Other assets	3,847	29,343
Accrued interest payable	1,077	6,728
Other liabilities	(543)	(4,976)
Total adjustments	22,436	49,830
Net cash provided by operating activities	105,263	115,028
INVESTING ACTIVITIES:		
Net change in:		
Interest-bearing deposits	2,574	22,418
Securities purchased under agreements to resell	6,065,851	770,959
Federal funds sold	(14,125,000)	(1,483,000)
Premises, software, and equipment	(888)	(383)
Trading securities:		
Proceeds from maturities of long-term	55	44
Available-for-sale securities:		
Net decrease in short-term	400,000	1,150,000
Held-to-maturity securities:		
Net decrease (increase) in short-term	992	(1,460)
Proceeds from maturities of long-term	556,816	557,070
Purchases of long-term	(1,857,422)	(1,343,696)
Advances:		
Repaid	1,062,801,343	426,150,933
Originated	(1,056,807,749)	(417,564,160)
Mortgage loans held for portfolio:		
Principal collected	255,683	321,672
Purchases	(317,562)	(482,513)
Net cash (used in) provided by investing activities	(3,025,307)	8,097,884

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

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

(In thousands)

	Three Months Ended March 31,	
	2018	2017
FINANCING ACTIVITIES:		
Net change in deposits and pass-through reserves	\$ 38,218	\$ (94,590)
Net payments on derivative contracts with financing elements	(409)	(1,716)
Net proceeds from issuance of Consolidated Obligations:		
Discount Notes	116,799,928	102,823,446
Bonds	6,310,660	7,815,958
Payments for maturing and retiring Consolidated Obligations:		
Discount Notes	(109,940,338)	(111,218,858)
Bonds	(8,680,425)	(7,504,000)
Proceeds from issuance of capital stock	282,415	18,291
Payments for repurchase/redemption of mandatorily redeemable capital stock	(1,998)	(4,420)
Cash dividends paid	(61,372)	(46,847)
Net cash provided by (used in) financing activities	<u>4,746,679</u>	<u>(8,212,736)</u>
Net increase in cash and cash equivalents	1,826,635	176
Cash and cash equivalents at beginning of the period	26,550	8,737
Cash and cash equivalents at end of the period	<u>\$ 1,853,185</u>	<u>\$ 8,913</u>
Supplemental Disclosures:		
Interest paid	<u>\$ 392,372</u>	<u>\$ 237,088</u>
Affordable Housing Program payments, net	<u>\$ 4,565</u>	<u>\$ 5,361</u>

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 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, 2017 filed with the Securities and Exchange Commission (SEC). Results for the three months ended March 31, 2018 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 10. 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 2017 Annual Report on Form 10-K.

The FHLB did not hold any equity securities as of March 31, 2018 and December 31, 2017.

Reclassifications. Certain amounts in the 2017 financial statements and footnotes have been reclassified to conform to the presentation as of March 31, 2018. Specifically, due to a change in presentation, variation margin on certain cleared derivatives has been reclassified from netting adjustments and cash collateral and allocated to the individual derivative instruments. Refer to Note 10 for additional information.

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 Accounting Standards and Interpretations

Targeted Improvements to Accounting for Hedging Activities. On August 28, 2017, the Financial Accounting Standards Board (FASB) issued amended guidance to improve the financial reporting of hedging relationships to better portray the economic results of an entity's risk management activities in its financial statements. This guidance requires that, for fair value hedges, the entire change in the fair value of the hedging instrument included in the assessment of hedge effectiveness be presented in the

same income statement line that is used to present the earnings effect of the hedged item. For cash flow hedges, the entire change in the fair value of the hedging instrument included in the assessment of hedge effectiveness must be recorded in other comprehensive income. In addition, the amendments include certain targeted improvements to the assessment of hedge effectiveness. This guidance becomes effective for the FHLB for interim and annual periods beginning on January 1, 2019, and early adoption is permitted. The amended presentation and disclosure guidance is required only prospectively. The FHLB does not intend to adopt the new guidance early. The FHLB is in the process of evaluating this guidance, and its effect on the FHLB's financial condition, results of operations, and cash flows has not yet been determined.

Premium Amortization on Purchased Callable Debt Securities. On March 30, 2017, the FASB issued amended guidance to shorten the amortization period for certain purchased callable debt securities held at a premium. Specifically, the amendments require the premium to be amortized to the earliest call date. The amendments do not require an accounting change for securities held at a discount; the discount continues to be amortized to maturity. This guidance is effective for the FHLB for interim and annual periods beginning on January 1, 2019, and early adoption is permitted. This guidance should be applied using a modified retrospective method through a cumulative-effect adjustment directly to retained earnings as of the beginning of the period of adoption. The FHLB does not intend to adopt this guidance early. The FHLB is in the process of evaluating this guidance, but its effect on the FHLB's financial condition, results of operations, and cash flows is not expected to be material.

Improving the Presentation of Net Periodic Pension and Postretirement Benefit Cost. On March 10, 2017, the FASB issued amended guidance that requires an employer to disaggregate the service cost component from the other components of net periodic pension and postretirement benefit costs (net benefit costs). The amendments also provide explicit guidance on how to present the service cost component and the other components of net benefit costs in the income statement and allow only the service cost component of net benefit cost to be eligible for capitalization. This guidance became effective for the FHLB for interim and annual periods beginning on January 1, 2018, and was adopted retrospectively, for the presentation of the service cost component and the other components of net benefit costs in the income statement. For the capitalization of the service cost component of net benefit costs, this guidance was applied prospectively on and after the effective date. As a result of the adoption, \$717,000 of other components of net benefit costs were reclassified from "Compensation and benefits" to "Other" within the non-interest expense section of the Statements of Income for the three months ended March 31, 2017. The adoption of this guidance had no effect on the FHLB's financial condition and cash flows.

Classification of Certain Cash Receipts and Cash Payments. On August 26, 2016, the FASB issued amendments to clarify guidance on the classification of certain cash receipts and payments in the Statement of Cash Flows. This guidance is intended to reduce existing diversity in practice in how certain cash receipts and cash payments are presented and classified on the Statement of Cash Flows. This guidance became effective for the FHLB for interim and annual periods beginning on January 1, 2018. The adoption of this guidance had no effect on the FHLB's financial condition, results of operations, and cash flows.

Measurement of Credit Losses on Financial Instruments. On June 16, 2016, the FASB issued amended guidance for the accounting of credit losses on financial instruments. The amendments require entities to immediately record the full amount of expected credit losses in their loan portfolios. The measurement of expected credit losses is based on relevant information about past events, including historical experience, current conditions, and reasonable and supportable forecasts that affect the collectability of the reported amount. The guidance also requires, among other things, credit losses relating to available-for-sale debt securities to be recorded through an allowance for credit losses and expanded disclosure requirements. The guidance is effective for the FHLB for interim and annual periods beginning on January 1, 2020. Early application is permitted as of the interim and annual reporting periods beginning after December 15, 2018. The guidance should be applied using a modified-retrospective approach, through a cumulative-effect adjustment to retained earnings as of the beginning of the first reporting period in which the guidance is effective. In addition, entities are required to use a prospective transition approach for debt securities for which an other-than-temporary impairment had been recognized before the effective date. The FHLB does not intend to adopt the new guidance early. While the FHLB is still in the process of evaluating this guidance, the FHLB expects the guidance will result in an increase in the allowance for credit losses given the requirement to estimate losses for the entire estimated life of the financial asset. The extent of the impact on the FHLB's financial condition, results of operations, and cash flows will depend upon the composition of the FHLB's financial assets at the adoption date and the economic conditions and forecasts at that time.

Leases. On February 25, 2016, the FASB issued guidance which requires recognition of lease assets and lease liabilities on the Statement of Condition and disclosure of key information about leasing arrangements. In particular, this guidance requires a lessee, of operating or finance leases, to recognize on the Statement of Condition a liability to make lease payments and a right-of-use asset representing its right to use the underlying asset for the lease term. However, for leases with a term of 12 months or less, a lessee is permitted to make an accounting policy election not to recognize lease assets and lease liabilities. The guidance becomes effective for the FHLB for the interim and annual periods beginning on January 1, 2019, and early application is permitted. The guidance requires lessors and lessees to recognize and measure leases at the beginning of the earliest period presented in the financial statements using a modified retrospective approach. The FHLB does not intend to adopt the new guidance early. Upon adoption, the FHLB expects to report higher assets and liabilities as a result of including right-of-use assets and lease liabilities on its Statement of Condition. While the FHLB is still in the process of evaluating this guidance, the FHLB does not expect the new guidance to have a material impact on its financial condition, results of operations, and cash flows.

Recognition and Measurement of Financial Assets and Financial Liabilities. On January 5, 2016, the FASB issued amended guidance on certain aspects of recognition, measurement, presentation, and disclosure of financial instruments. This guidance includes, but is not limited to, the following:

- Requires an entity to present separately in other comprehensive income the portion of the total change in the fair value of a liability resulting from a change in the instrument-specific credit risk when the entity has elected the fair value option.
- Requires separate presentation of financial assets and financial liabilities by measurement category and form of financial asset on the Statement of Condition or the accompanying notes to the financial statements.
- Eliminates the requirement for public entities to disclose the method(s) and significant assumptions used to estimate the fair value for financial instruments measured at amortized cost on the Statement of Condition.

The guidance became effective for the FHLB for the interim and annual periods beginning on January 1, 2018. While the adoption of this guidance affected the FHLB's disclosures, the requirement to present the instrument-specific credit risk in other comprehensive income did not have any effect on the FHLB's financial condition, results of operations, and cash flows.

Revenue from Contracts with Customers. On May 28, 2014, the FASB issued guidance on revenue from contracts with customers. This guidance applies to all contracts with customers except those that are within the scope of certain other standards, such as financial instruments, certain guarantees, insurance contracts, and lease contracts. This guidance became effective for the FHLB for the interim and annual periods beginning on January 1, 2018. Given that the majority of the FHLB's financial instruments and other contractual rights that generate revenue are covered by other GAAP, the adoption of this guidance did not have any effect on the FHLB's financial condition, results of operations, and cash flows.

Note 3 - Trading Securities

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

<u>Fair Value</u>	<u>March 31, 2018</u>	<u>December 31, 2017</u>
Mortgage-backed securities (MBS):		
U.S. obligation single-family MBS	\$ 725	\$ 781
Total	<u>\$ 725</u>	<u>\$ 781</u>

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

	<u>Three Months Ended March 31,</u>	
	<u>2018</u>	<u>2017</u>
Net losses on trading securities held at period end	\$ (2)	\$ (3)
Net losses on trading securities	<u>\$ (2)</u>	<u>\$ (3)</u>

Note 4 - Available-for-Sale Securities

Table 4.1 - Available-for-Sale Securities by Major Security Types (in thousands)

	March 31, 2018			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Certificates of deposit	\$ 500,000	\$ 25	\$ (6)	\$ 500,019
Total	<u>\$ 500,000</u>	<u>\$ 25</u>	<u>\$ (6)</u>	<u>\$ 500,019</u>

	December 31, 2017			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Certificates of deposit	\$ 900,000	\$ —	\$ (124)	\$ 899,876
Total	<u>\$ 900,000</u>	<u>\$ —</u>	<u>\$ (124)</u>	<u>\$ 899,876</u>

All securities outstanding with gross unrealized losses at March 31, 2018 and December 31, 2017 were in a continuous unrealized loss position for less than 12 months.

Table 4.2 - Available-for-Sale Securities by Contractual Maturity (in thousands)

<u>Year of Maturity</u>	March 31, 2018		December 31, 2017	
	Amortized Cost	Fair Value	Amortized Cost	Fair Value
Due in one year or less	<u>\$ 500,000</u>	<u>\$ 500,019</u>	<u>\$ 900,000</u>	<u>\$ 899,876</u>

Table 4.3 - Interest Rate Payment Terms of Available-for-Sale Securities (in thousands)

	March 31, 2018	December 31, 2017
Amortized cost of available-for-sale securities:		
Fixed-rate	<u>\$ 500,000</u>	<u>\$ 900,000</u>

Realized Gains and Losses. The FHLB had no sales of securities out of its available-for-sale portfolio for the three months ended March 31, 2018 or 2017.

Note 5 - Held-to-Maturity Securities
Table 5.1 - Held-to-Maturity Securities by Major Security Types (in thousands)

	March 31, 2018			
	Amortized Cost ⁽¹⁾	Gross Unrecognized Holding Gains	Gross Unrecognized Holding Losses	Fair Value
Non-MBS:				
U.S. Treasury obligations	\$ 33,040	\$ —	\$ (15)	\$ 33,025
Total non-MBS	33,040	—	(15)	33,025
MBS:				
U.S. obligation single-family MBS	2,362,654	1,802	(60,732)	2,303,724
Government-sponsored enterprises (GSE) single-family MBS	6,405,233	16,946	(201,778)	6,220,401
GSE multi-family MBS	7,299,533	5,960	(1,813)	7,303,680
Total MBS	16,067,420	24,708	(264,323)	15,827,805
Total	\$ 16,100,460	\$ 24,708	\$ (264,338)	\$ 15,860,830
December 31, 2017				
	Amortized Cost ⁽¹⁾	Gross Unrecognized Holding Gains	Gross Unrecognized Holding Losses	Fair Value
Non-MBS:				
U.S. Treasury obligations	\$ 34,033	\$ —	\$ (6)	\$ 34,027
Total non-MBS	34,033	—	(6)	34,027
MBS:				
U.S. obligation single-family MBS	2,483,446	1,974	(23,547)	2,461,873
GSE single-family MBS	6,703,367	37,265	(138,960)	6,601,672
GSE multi-family MBS	5,584,124	4,956	(4,323)	5,584,757
Total MBS	14,770,937	44,195	(166,830)	14,648,302
Total	\$ 14,804,970	\$ 44,195	\$ (166,836)	\$ 14,682,329

(1) Carrying value equals amortized cost.

Table 5.2 - Net Purchased Premiums Included in the Amortized Cost of MBS Classified as Held-to-Maturity (in thousands)

	March 31, 2018	December 31, 2017
Premiums	\$ 48,196	\$ 49,713
Discounts	(23,401)	(24,243)
Net purchased premiums	\$ 24,795	\$ 25,470

Table 5.3 summarizes the held-to-maturity securities with unrealized losses, which are aggregated by major security type and length of time that individual securities have been in a continuous unrealized loss position.

Table 5.3 - Held-to-Maturity Securities in a Continuous Unrealized Loss Position (in thousands)

	March 31, 2018					
	Less than 12 Months		12 Months or more		Total	
	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses
Non-MBS:						
U.S. Treasury obligations	\$ 33,025	\$ (15)	\$ —	\$ —	\$ 33,025	\$ (15)
Total non-MBS	33,025	(15)	—	—	33,025	(15)
MBS:						
U.S. obligation single-family MBS	1,252,047	(34,690)	619,380	(26,042)	1,871,427	(60,732)
GSE single-family MBS	1,299,031	(31,181)	3,375,484	(170,597)	4,674,515	(201,778)
GSE multi-family MBS	2,807,226	(1,778)	31,845	(35)	2,839,071	(1,813)
Total MBS	5,358,304	(67,649)	4,026,709	(196,674)	9,385,013	(264,323)
Total	\$ 5,391,329	\$ (67,664)	\$ 4,026,709	\$ (196,674)	\$ 9,418,038	\$ (264,338)
December 31, 2017						
	Less than 12 Months		12 Months or more		Total	
	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses
Non-MBS:						
U.S. Treasury obligations	\$ 34,027	\$ (6)	\$ —	\$ —	\$ 34,027	\$ (6)
Total non-MBS	34,027	(6)	—	—	34,027	(6)
MBS:						
U.S. obligation single-family MBS	1,193,566	(10,455)	657,209	(13,092)	1,850,775	(23,547)
GSE single-family MBS	1,169,590	(14,171)	3,578,537	(124,789)	4,748,127	(138,960)
GSE multi-family MBS	1,133,452	(4,307)	136,051	(16)	1,269,503	(4,323)
Total MBS	3,496,608	(28,933)	4,371,797	(137,897)	7,868,405	(166,830)
Total	\$ 3,530,635	\$ (28,939)	\$ 4,371,797	\$ (137,897)	\$ 7,902,432	\$ (166,836)

Table 5.4 - Held-to-Maturity Securities by Contractual Maturity (in thousands)

	March 31, 2018		December 31, 2017	
	Amortized Cost ⁽¹⁾	Fair Value	Amortized Cost ⁽¹⁾	Fair Value
Non-MBS:				
Due in 1 year or less	\$ 33,040	\$ 33,025	\$ 34,033	\$ 34,027
Due after 1 year through 5 years	—	—	—	—
Due after 5 years through 10 years	—	—	—	—
Due after 10 years	—	—	—	—
Total non-MBS	33,040	33,025	34,033	34,027
MBS ⁽²⁾	16,067,420	15,827,805	14,770,937	14,648,302
Total	\$ 16,100,460	\$ 15,860,830	\$ 14,804,970	\$ 14,682,329

(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 5.5 - Interest Rate Payment Terms of Held-to-Maturity Securities (in thousands)

	March 31, 2018	December 31, 2017
Amortized cost of non-MBS:		
Fixed-rate	\$ 33,040	\$ 34,033
Total amortized cost of non-MBS	33,040	34,033
Amortized cost of MBS:		
Fixed-rate	7,659,880	8,003,906
Variable-rate	8,407,540	6,767,031
Total amortized cost of MBS	16,067,420	14,770,937
Total	\$ 16,100,460	\$ 14,804,970

Realized Gains and Losses. 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, 2018 and 2017, the FHLB did not sell any held-to-maturity securities.

Note 6 - Other-Than-Temporary Impairment Analysis

The FHLB evaluates any of its individual available-for-sale and held-to-maturity investment securities holdings in an unrealized loss position for other-than-temporary impairment on a quarterly basis.

For its U.S. obligations and GSE investments (MBS and non-MBS), the FHLB has determined that the strength of the issuers' guarantees through direct obligations or support from the U.S. government is sufficient to protect the FHLB from losses based on current expectations. As a result, the FHLB determined that, as of March 31, 2018, all of the gross unrealized losses on these investments were temporary as the declines in market value of these securities were not attributable to credit quality. Furthermore, the FHLB does not intend to sell the investments, and it is not more likely than not that the FHLB will be required to sell the investments before recovery of their amortized cost bases. As a result, the FHLB did not consider any of these investments to be other-than-temporarily impaired at March 31, 2018.

The FHLB also reviewed its available-for-sale securities that have experienced unrealized losses at March 31, 2018 and determined that the unrealized losses are due primarily to interest rate volatility and/or illiquidity. These losses are considered temporary as the FHLB expects to recover its entire amortized cost basis. Additionally, because the FHLB does not intend to sell these securities, nor is it more likely than not that the FHLB will be required to sell the securities before recovery, it did not consider the investments to be other-than-temporarily impaired at March 31, 2018.

The FHLB did not consider any of its investments to be other-than-temporarily impaired at December 31, 2017.

Note 7 - 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 7.1 - Advance Redemption Terms (dollars in thousands)

Redemption Term	March 31, 2018		December 31, 2017	
	Amount	Weighted Average Interest Rate	Amount	Weighted Average Interest Rate
Overdrawn demand deposit accounts	\$ 668	1.92%	\$ 1,302	1.55%
Due in 1 year or less	33,424,607	1.89	40,473,141	1.55
Due after 1 year through 2 years	18,399,404	2.02	15,655,118	1.69
Due after 2 years through 3 years	4,951,832	2.01	6,537,170	1.74
Due after 3 years through 4 years	1,875,121	2.11	1,980,655	2.00
Due after 4 years through 5 years	896,613	2.26	893,283	2.07
Thereafter	4,436,561	2.48	4,437,731	2.17
Total principal amount	63,984,806	1.99	69,978,400	1.66
Commitment fees	(504)		(510)	
Discount on Affordable Housing Program (AHP) Advances	(5,429)		(5,795)	
Premiums	1,720		1,789	
Discounts	(3,935)		(4,252)	
Hedging adjustments	(93,755)		(51,421)	
Fair value option valuation adjustments and accrued interest	(29)		13	
Total	\$ 63,882,874		\$ 69,918,224	

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 7.2 - Advances by Year of Contractual Maturity or Next Call Date (in thousands)

Year of Contractual Maturity or Next Call Date	March 31, 2018	December 31, 2017
Overdrawn demand deposit accounts	\$ 668	\$ 1,302
Due in 1 year or less	43,251,473	46,390,733
Due after 1 year through 2 years	13,771,445	15,054,889
Due after 2 years through 3 years	3,771,032	3,768,534
Due after 3 years through 4 years	1,331,911	2,903,655
Due after 4 years through 5 years	506,716	506,557
Thereafter	1,351,561	1,352,730
Total principal amount	\$ 63,984,806	\$ 69,978,400

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

Table 7.3 - Advances by Year of Contractual Maturity or Next Put Date for Putable Advances (in thousands)

<u>Year of Contractual Maturity or Next Put Date</u>	<u>March 31, 2018</u>	<u>December 31, 2017</u>
Overdrawn demand deposit accounts	\$ 668	\$ 1,302
Due in 1 year or less	33,534,607	40,588,641
Due after 1 year through 2 years	18,399,404	15,649,618
Due after 2 years through 3 years	4,951,832	6,537,170
Due after 3 years through 4 years	1,875,121	1,980,655
Due after 4 years through 5 years	896,613	893,283
Thereafter	4,326,561	4,327,731
Total principal amount	<u>\$ 63,984,806</u>	<u>\$ 69,978,400</u>

Table 7.4 - Advances by Interest Rate Payment Terms (in thousands)

	<u>March 31, 2018</u>	<u>December 31, 2017</u>
Total fixed-rate ⁽¹⁾	\$ 31,556,746	\$ 36,615,777
Total variable-rate ⁽¹⁾	32,428,060	33,362,623
Total principal amount	<u>\$ 63,984,806</u>	<u>\$ 69,978,400</u>

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

Table 7.5 - Borrowers Holding Five Percent or more of Total Advances, Including Any Known Affiliates that are Members of the FHLB (dollars in millions)

<u>March 31, 2018</u>			<u>December 31, 2017</u>		
	<u>Principal</u>	<u>% of Total Principal Amount of Advances</u>		<u>Principal</u>	<u>% of Total Principal Amount of Advances</u>
JPMorgan Chase Bank, N.A.	\$ 24,200	38%	JPMorgan Chase Bank, N.A.	\$ 23,950	34%
U.S. Bank, N.A.	9,475	15	U.S. Bank, N.A.	8,975	13
Third Federal Savings and Loan Association	3,714	6	Third Federal Savings and Loan Association	3,756	5
Total	<u>\$ 37,389</u>	<u>59%</u>	The Huntington National Bank	3,732	5
			Total	<u>\$ 40,413</u>	<u>57%</u>

Note 8 - Mortgage Loans Held for Portfolio
Table 8.1 - Mortgage Loans Held for Portfolio (in thousands)

	<u>March 31, 2018</u>	<u>December 31, 2017</u>
Unpaid principal balance:		
Fixed rate medium-term single-family mortgage loans ⁽¹⁾	\$ 1,080,073	\$ 1,128,749
Fixed rate long-term single-family mortgage loans	8,428,893	8,325,465
Total unpaid principal balance	9,508,966	9,454,214
Premiums	217,080	217,716
Discounts	(3,063)	(3,173)
Hedging basis adjustments ⁽²⁾	9,256	13,373
Total mortgage loans held for portfolio	<u>\$ 9,732,239</u>	<u>\$ 9,682,130</u>

(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.

Table 8.2 - Mortgage Loans Held for Portfolio by Collateral/Guarantee Type (in thousands)

	<u>March 31, 2018</u>	<u>December 31, 2017</u>
Unpaid principal balance:		
Conventional mortgage loans	\$ 9,197,041	\$ 9,129,003
Federal Housing Administration (FHA) mortgage loans	311,925	325,211
Total unpaid principal balance	\$ 9,508,966	\$ 9,454,214

For information related to the FHLB's credit risk on mortgage loans and allowance for credit losses, see Note 9.

Table 8.3 - 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)

	<u>March 31, 2018</u>			<u>December 31, 2017</u>	
	<u>Principal</u>	<u>% of Total</u>		<u>Principal</u>	<u>% of Total</u>
Union Savings Bank	\$ 3,279	34%	Union Savings Bank	\$ 3,247	34%
Guardian Savings Bank FSB	943	10	Guardian Savings Bank FSB	933	10
PNC Bank, N.A. ⁽¹⁾	491	5	PNC Bank, N.A. ⁽¹⁾	516	5
Huntington National Bank	482	5			

(1) Former Member.

Note 9 - Allowance for Credit Losses

The FHLB has established an allowance methodology for each of the FHLB's portfolio segments: credit products (Advances, Letters of Credit and other extensions of credit to Members); FHA mortgage loans held for portfolio; and conventional mortgage loans held for portfolio.

Credit Products

The FHLB manages its credit exposure to credit products through an integrated approach that includes establishing a credit limit for each borrower, 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. 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. The FHLB accepts certain investment securities, residential mortgage loans, deposits and other real estate related assets as collateral. In addition, community financial institutions are eligible to utilize expanded statutory collateral provisions for small business, agriculture loans and community development 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. Management of the FHLB believes that these policies effectively manage the FHLB's credit risk from credit products.

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, and/or may be required to provide details on these 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 be entitled to priority under otherwise 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, 2018 and December 31, 2017, the FHLB had rights to collateral on a Member-by-Member basis with an estimated value in excess of its outstanding extensions of credit.

The FHLB evaluates and makes changes to its collateral guidelines, as necessary, based on current market conditions. At March 31, 2018 and December 31, 2017, the FHLB did not have any Advances that were past due, in non-accrual status or impaired. In addition, there were no troubled debt restructurings related to credit products of the FHLB during the three months ended March 31, 2018 or 2017.

The FHLB has not experienced any credit losses on Advances since it was founded in 1932. Based upon the collateral held as security, its credit extension and collateral policies and the repayment history on credit products, the FHLB did not record any credit losses on credit products as of March 31, 2018 or December 31, 2017. Accordingly, the FHLB did not record any allowance for credit losses on Advances.

At March 31, 2018 and December 31, 2017, the FHLB did not record any liability to reflect an allowance for credit losses for off-balance sheet credit exposures. See Note 19 for additional information on the FHLB's off-balance sheet credit exposure.

Mortgage Loans Held for Portfolio - 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 establish 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 Held for Portfolio - Conventional Mortgage Purchase Program (MPP)

The FHLB determines the allowance for conventional loans through analyses that include consideration of various data observations such as past performance, current performance, loan portfolio characteristics, collateral-related characteristics, industry data, and prevailing economic conditions. The measurement of the allowance for credit losses consists of:

(1) collectively evaluating homogeneous pools of residential mortgage loans; (2) reviewing specifically identified loans for impairment; and (3) considering other relevant qualitative factors.

Collectively Evaluated Mortgage Loans. The credit risk analysis of conventional loans evaluated collectively for impairment considers historical delinquency migration, applies estimated loss severities, and incorporates the associated credit enhancements in order to determine the FHLB's best estimate of probable incurred losses at the reporting date. The FHLB performs the credit risk analysis of all conventional mortgage loans at the individual Master Commitment Contract level to properly determine the credit enhancements available to recover losses on loans under each individual Master Commitment Contract. The Master Commitment Contract is an agreement with a Member in which the Member agrees to make a best efforts attempt to sell a specific dollar amount of loans to the FHLB generally over a one-year period. Migration analysis is a methodology for determining, through the FHLB's experience over a historical period, the rate of default on loans. The FHLB applies migration analysis to loans based on payment status categories such as current, 30, 60, and 90 days past due. The FHLB then estimates how many loans in these categories may migrate to a loss realization event and applies a current loss severity to estimate losses. The estimated losses are then reduced by the probable cash flows resulting from available credit enhancements. Any credit enhancement cash flows that are projected and assessed as not probable of receipt do not reduce estimated losses.

Individually Evaluated Mortgage Loans. Conventional mortgage loans that are considered troubled debt restructurings are specifically identified for purposes of calculating the allowance for credit losses. The FHLB measures impairment of these specifically identified loans by either estimating the present value of expected cash flows, estimating the loan's observable market price, or estimating the fair value of the collateral if the loan is collateral dependent. The FHLB removes specifically identified loans evaluated for impairment from the collectively evaluated mortgage loan population.

Qualitative Factors. 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, that is intended to cover other incurred losses that may not otherwise be captured in the methodology described above.

Rollforward of Allowance for Credit Losses on Mortgage Loans. The following tables present a rollforward of the allowance for credit losses on conventional mortgage loans as well as the recorded investment in mortgage loans by impairment methodology. The recorded investment in a loan is the unpaid principal balance of the loan adjusted for accrued interest, unamortized premiums or discounts, hedging basis adjustments and direct write-downs. The recorded investment is not net of any allowance.

Table 9.1 - Rollforward of Allowance for Credit Losses on Conventional Mortgage Loans (in thousands)

	Three Months Ended March 31,	
	2018	2017
Balance, beginning of period	\$ 1,190	\$ 1,142
Net charge offs	(122)	(262)
Balance, end of period	<u>\$ 1,068</u>	<u>\$ 880</u>

Table 9.2 - Allowance for Credit Losses and Recorded Investment on Conventional Mortgage Loans by Impairment Methodology (in thousands)

	<u>March 31, 2018</u>	<u>December 31, 2017</u>
Allowance for credit losses:		
Collectively evaluated for impairment	\$ 1,068	\$ 1,190
Individually evaluated for impairment	—	—
Total allowance for credit losses	<u>\$ 1,068</u>	<u>\$ 1,190</u>
Recorded investment:		
Collectively evaluated for impairment	\$ 9,436,634	\$ 9,373,393
Individually evaluated for impairment	10,747	10,109
Total recorded investment	<u>\$ 9,447,381</u>	<u>\$ 9,383,502</u>

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). The amount of credit enhancements needed to protect the FHLB against credit losses is determined through use of a third-party default model. 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 as a portion of the purchase proceeds to cover expected losses. The LRA is recorded in other liabilities in the Statements of Condition. Excess funds over required balances are distributed to the Member in accordance with a step-down schedule that is established upon execution of a Master Commitment Contract, 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.

Table 9.3 - Changes in the LRA (in thousands)

	Three Months Ended March 31, 2018
LRA at beginning of year	\$ 200,745
Additions	3,812
Claims	(24)
Scheduled distributions	(4,215)
LRA at end of period	<u>\$ 200,318</u>

Credit Quality Indicators. Key credit quality indicators for mortgage loans include the migration of past due loans, loans in process of foreclosure, and non-accrual loans. The table below summarizes the FHLB's key credit quality indicators for mortgage loans.

Table 9.4 - Recorded Investment in Delinquent Mortgage Loans (dollars in thousands)

	March 31, 2018		
	Conventional MPP Loans	FHA Loans	Total
Past due 30-59 days delinquent	\$ 40,449	\$ 21,029	\$ 61,478
Past due 60-89 days delinquent	6,401	5,973	12,374
Past due 90 days or more delinquent	16,810	11,041	27,851
Total past due	63,660	38,043	101,703
Total current mortgage loans	9,383,721	278,241	9,661,962
Total mortgage loans	\$ 9,447,381	\$ 316,284	\$ 9,763,665
Other delinquency statistics:			
In process of foreclosure, included above ⁽¹⁾	\$ 9,303	\$ 5,114	\$ 14,417
Serious delinquency rate ⁽²⁾	0.19%	3.49%	0.29%
Past due 90 days or more still accruing interest ⁽³⁾	\$ 15,322	\$ 11,041	\$ 26,363
Loans on non-accrual status, included above	\$ 2,882	\$ —	\$ 2,882
	December 31, 2017		
	Conventional MPP Loans	FHA Loans	Total
Past due 30-59 days delinquent	\$ 36,662	\$ 20,992	\$ 57,654
Past due 60-89 days delinquent	8,040	6,974	15,014
Past due 90 days or more delinquent	16,702	10,484	27,186
Total past due	61,404	38,450	99,854
Total current mortgage loans	9,322,098	291,371	9,613,469
Total mortgage loans	\$ 9,383,502	\$ 329,821	\$ 9,713,323
Other delinquency statistics:			
In process of foreclosure, included above ⁽¹⁾	\$ 10,039	\$ 4,767	\$ 14,806
Serious delinquency rate ⁽²⁾	0.19%	3.19%	0.29%
Past due 90 days or more still accruing interest ⁽³⁾	\$ 15,431	\$ 10,484	\$ 25,915
Loans on non-accrual status, included above	\$ 2,713	\$ —	\$ 2,713

(1) Includes loans where the decision of foreclosure or a similar alternative such as pursuit of deed-in-lieu has been reported. Loans in process of foreclosure are included in past due or current loans dependent on their delinquency status.

(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 recorded investment amount.

(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, 2018 or December 31, 2017.

Individually Evaluated Impaired Loans. Table 9.5 presents the recorded investment, unpaid principal balance, and related allowance associated with loans individually evaluated for investment.

Table 9.5 - Individually Evaluated Impaired Loan Statistics by Product Class Level (in thousands)

	March 31, 2018			December 31, 2017		
	Recorded Investment	Unpaid Principal Balance	Related Allowance	Recorded Investment	Unpaid Principal Balance	Related Allowance
Conventional MPP loans						
With no related allowance	\$ 10,747	\$ 10,536	\$ —	\$ 10,109	\$ 9,912	\$ —
With an allowance	—	—	—	—	—	—
Total	\$ 10,747	\$ 10,536	\$ —	\$ 10,109	\$ 9,912	\$ —

Table 9.6 - Average Recorded Investment of Individually Evaluated Impaired Loans and Related Interest Income Recognized (in thousands)

	Three Months Ended March 31,			
	2018		2017	
	Average Recorded Investment	Interest Income Recognized	Average Recorded Investment	Interest Income Recognized
Individually impaired loans				
Conventional MPP Loans	\$ 10,654	\$ 124	\$ 9,356	\$ 111

Troubled Debt Restructurings. A troubled debt restructuring is considered to have occurred when a concession is granted to a borrower for economic or legal reasons related to the borrower's financial difficulties and that concession would not have been considered otherwise. The FHLB's troubled debt restructurings primarily involve loans where an agreement permits the recapitalization of past due amounts up to the original loan amount and certain loans discharged in Chapter 7 bankruptcy. A loan considered a troubled debt restructuring is individually evaluated for impairment when determining its related allowance for credit losses. Credit loss is measured by estimating expected cash shortfalls incurred as of the reporting date.

The FHLB's recorded investment in modified loans considered troubled debt restructurings was (in thousands) \$10,747 and \$10,109 at March 31, 2018 and December 31, 2017, respectively. The amount of troubled debt restructurings is not considered material to the FHLB's financial condition, results of operations, or cash flows.

Note 10 - 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 11 - Derivatives and Hedging Activities in the FHLB's 2017 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 either executed with a counterparty (uncleared derivatives) or cleared through a Futures Commission Merchant (i.e., clearing agent) with a Derivative Clearing Organization (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 10.1 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 10.1 - Fair Value of Derivative Instruments (in thousands)

	March 31, 2018		
	Notional Amount of Derivatives	Derivative Assets	Derivative Liabilities
Derivatives designated as fair value hedging instruments:			
Interest rate swaps	\$ 6,269,438	\$ 2,188	\$ 6,454
Derivatives not designated as hedging instruments:			
Interest rate swaps	6,187,840	3,053	1,239
Interest rate swaptions	1,840,000	8,891	—
Forward rate agreements	196,000	—	1,269
Mortgage delivery commitments	252,298	377	566
Total derivatives not designated as hedging instruments	<u>8,476,138</u>	<u>12,321</u>	<u>3,074</u>
Total derivatives before adjustments	<u>\$ 14,745,576</u>	<u>14,509</u>	<u>9,528</u>
Netting adjustments and cash collateral ⁽¹⁾		<u>47,368</u>	<u>(6,417)</u>
Total derivative assets and total derivative liabilities		<u>\$ 61,877</u>	<u>\$ 3,111</u>
		December 31, 2017 ⁽²⁾	
	Notional Amount of Derivatives	Derivative Assets	Derivative Liabilities
Derivatives designated as fair value hedging instruments:			
Interest rate swaps	\$ 5,992,762	\$ 58,027	\$ 9,190
Derivatives not designated as hedging instruments:			
Interest rate swaps	5,789,265	2,639	363
Interest rate swaptions	2,316,000	3,171	—
Forward rate agreements	212,000	27	230
Mortgage delivery commitments	218,651	453	17
Total derivatives not designated as hedging instruments	<u>8,535,916</u>	<u>6,290</u>	<u>610</u>
Total derivatives before adjustments	<u>\$ 14,528,678</u>	<u>64,317</u>	<u>9,800</u>
Netting adjustments and cash collateral ⁽¹⁾		<u>(3,622)</u>	<u>(6,907)</u>
Total derivative assets and total derivative liabilities		<u>\$ 60,695</u>	<u>\$ 2,893</u>

- (1) Amounts represent the application of the netting requirements that allow the FHLB to settle positive and negative positions, and also cash collateral and related accrued interest held or placed by the FHLB with the same clearing agent and/or counterparty. Cash collateral posted and related accrued interest was (in thousands) \$61,409 and \$64,079 at March 31, 2018 and December 31, 2017. Cash collateral received and related accrued interest was (in thousands) \$7,624 and \$60,794 at March 31, 2018 and December 31, 2017.
- (2) To conform with current presentation, (in thousands) \$74,431 in variation margin has been allocated to the individual derivative instruments as of December 31, 2017. Previously, this amount was included with Netting adjustments and cash collateral.

Table 10.2 presents the components of net losses on derivatives and hedging activities as presented in the Statements of Income.

Table 10.2 - Net Losses on Derivatives and Hedging Activities (in thousands)

	Three Months Ended March 31,	
	2018	2017
Derivatives and hedged items in fair value hedging relationships:		
Interest rate swaps	\$ 992	\$ 345
Derivatives not designated as hedging instruments:		
Economic hedges:		
Interest rate swaps	(24,477)	(3,547)
Interest rate swaptions	4,658	(8,316)
Forward rate agreements	4,029	(377)
Net interest settlements	(7,324)	368
Mortgage delivery commitments	(4,249)	3,295
Total net losses related to derivatives not designated as hedging instruments	(27,363)	(8,577)
Other ⁽¹⁾	(2)	116
Net losses on derivatives and hedging activities	\$ (26,373)	\$ (8,116)

(1) Consists of price alignment amount on derivatives for which variation margin is characterized as a daily settled contract.

Table 10.3 presents by type of hedged item, the gains (losses) on derivatives and the related hedged items in fair value hedging relationships and the impact of those derivatives on the FHLB's net interest income.

Table 10.3 - Effect of Fair Value Hedge-Related Derivative Instruments (in thousands)

	Three Months Ended March 31,			
	Gain/(Loss) on Derivative	Gain/(Loss) on Hedged Item	Net Fair Value Hedge Ineffectiveness	Effect of Derivatives on Net Interest Income⁽¹⁾
2018				
Hedged Item Type:				
Advances	\$ 43,053	\$ (42,163)	\$ 890	\$ 893
Consolidated Bonds	(411)	513	102	(1,243)
Total	\$ 42,642	\$ (41,650)	\$ 992	\$ (350)
2017				
Hedged Item Type:				
Advances	\$ 9,367	\$ (9,169)	\$ 198	\$ (6,701)
Consolidated Bonds	(1,070)	1,217	147	423
Total	\$ 8,297	\$ (7,952)	\$ 345	\$ (6,278)

(1) For fair value hedge relationships, the net effect of derivatives on net interest income is included in the interest income or interest expense line item of the respective hedged item type. These amounts include the effect of net interest settlements attributable to designated fair value hedges but do not include (in thousands) \$(171) and \$(604) of (amortization)/accretion related to fair value hedging activities for the three months ended March 31, 2018 and 2017.

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 with collateral delivery thresholds on the majority of its uncleared derivatives.

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. Effective January 16, 2018, LCH Ltd. made certain amendments to its rulebook changing the legal characterization of variation margin payments to be daily settlement payments, rather than collateral. CME Clearing made the same change to its rulebook on January 3, 2017. As a result, at both Clearinghouses, variation margin is characterized as daily settlement payments, rather than cash collateral. At both Clearinghouses, initial margin continues to be considered 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.

Certain of the FHLB's uncleared derivative contracts contain credit-risk-related contingent features that require the FHLB to post additional collateral with its counterparties if there is deterioration in the FHLB's credit ratings. The aggregate fair value of such uncleared derivatives in a net liability position (before cash collateral and related accrued interest) at March 31, 2018 was (in thousands) \$874, for which the FHLB was not required to post any collateral. If the FHLB's credit ratings had been lowered to the next lower rating, the FHLB would not have been required to deliver any additional collateral at March 31, 2018.

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, 2018, 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 determined that the exercise of those offsetting rights by a non-defaulting party under these transactions should 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 10.4 presents separately the fair value of derivative instruments meeting or not meeting netting requirements, including the related collateral received from or pledged to counterparties. At March 31, 2018 and December 31, 2017, 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 10.4 - Offsetting of Derivative Assets and Derivative Liabilities (in thousands)

March 31, 2018					
Derivative Instruments Meeting Netting Requirements					
	Amount Recognized	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	\$ 13,138	\$ (12,931)	\$ 377	\$ 584	
Cleared	994	60,299	—	61,293	
Total				<u>\$ 61,877</u>	
Derivative Liabilities:					
Uncleared	\$ 6,733	\$ (5,457)	\$ 1,835	\$ 3,111	
Cleared	960	(960)	—	—	
Total				<u>\$ 3,111</u>	
December 31, 2017⁽²⁾					
Derivative Instruments Meeting Netting Requirements					
	Amount Recognized	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	\$ 5,239	\$ (5,215)	\$ 480	\$ 504	
Cleared	58,598	1,593	—	60,191	
Total				<u>\$ 60,695</u>	
Derivative Liabilities:					
Uncleared	\$ 8,773	\$ (6,127)	\$ 247	\$ 2,893	
Cleared	780	(780)	—	—	
Total				<u>\$ 2,893</u>	

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

(2) To conform with current presentation, (in thousands) \$74,431 in variation margin has been allocated to the individual derivative instruments with the Amount Recognized as of December 31, 2017. Previously, this amount was included with Gross Amount of Netting Adjustments and Cash Collateral.

Note 11 - Deposits
Table 11.1 - Deposits (in thousands)

	<u>March 31, 2018</u>	<u>December 31, 2017</u>
Interest bearing:		
Demand and overnight	\$ 620,839	\$ 590,617
Term	51,850	52,600
Other	6,706	5,509
Total interest bearing	<u>679,395</u>	<u>648,726</u>
Non-interest bearing:		
Other	4,003	1,805
Total non-interest bearing	<u>4,003</u>	<u>1,805</u>
Total deposits	<u>\$ 683,398</u>	<u>\$ 650,531</u>

The average interest rates paid on interest bearing deposits were 1.23 percent and 0.40 percent in the three months ended March 31, 2018 and 2017, respectively.

Note 12 - Consolidated Obligations
Table 12.1 - Consolidated Discount Notes Outstanding (dollars in thousands)

	<u>Book Value</u>	<u>Principal Amount</u>	<u>Weighted Average Interest Rate ⁽¹⁾</u>
March 31, 2018	\$ 53,089,129	\$ 53,188,117	1.63%
December 31, 2017	<u>\$ 46,210,458</u>	<u>\$ 46,258,644</u>	<u>1.23%</u>

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

Table 12.2 - Consolidated Bonds Outstanding by Contractual Maturity (dollars in thousands)

<u>Year of Contractual Maturity</u>	<u>March 31, 2018</u>		<u>December 31, 2017</u>	
	<u>Amount</u>	<u>Weighted Average Interest Rate</u>	<u>Amount</u>	<u>Weighted Average Interest Rate</u>
Due in 1 year or less	\$ 26,535,640	1.63%	\$ 28,940,265	1.34%
Due after 1 year through 2 years	6,471,000	1.89	5,841,800	1.74
Due after 2 years through 3 years	6,156,565	1.77	4,770,565	1.89
Due after 3 years through 4 years	4,354,000	2.18	6,017,000	1.92
Due after 4 years through 5 years	2,283,620	2.27	2,244,620	2.24
Thereafter	5,982,055	2.76	6,343,055	2.72
Total principal amount	<u>51,782,880</u>	1.88	<u>54,157,305</u>	1.69
Premiums	83,967		86,521	
Discounts	(29,870)		(30,669)	
Hedging adjustments	(3,658)		(3,146)	
Fair value option valuation adjustment and accrued interest	(66,013)		(46,950)	
Total	<u>\$ 51,767,306</u>		<u>\$ 54,163,061</u>	

Table 12.3 - Consolidated Bonds Outstanding by Call Features (in thousands)

	<u>March 31, 2018</u>	<u>December 31, 2017</u>
Principal Amount of Consolidated Bonds:		
Non-callable	\$ 44,684,880	\$ 47,155,305
Callable	7,098,000	7,002,000
Total principal amount	<u>\$ 51,782,880</u>	<u>\$ 54,157,305</u>

Table 12.4 - Consolidated Bonds Outstanding by Contractual Maturity or Next Call Date (in thousands)

<u>Year of Contractual Maturity or Next Call Date</u>	<u>March 31, 2018</u>	<u>December 31, 2017</u>
Due in 1 year or less	\$ 32,721,640	\$ 35,029,265
Due after 1 year through 2 years	5,973,000	5,369,800
Due after 2 years through 3 years	5,066,565	3,715,565
Due after 3 years through 4 years	2,662,000	4,388,000
Due after 4 years through 5 years	1,879,620	1,823,620
Thereafter	3,480,055	3,831,055
Total principal amount	<u>\$ 51,782,880</u>	<u>\$ 54,157,305</u>

Table 12.5 - Consolidated Bonds by Interest-rate Payment Type (in thousands)

	<u>March 31, 2018</u>	<u>December 31, 2017</u>
Principal Amount of Consolidated Bonds:		
Fixed-rate	\$ 33,672,880	\$ 33,252,305
Variable-rate	18,100,000	20,895,000
Step-up	10,000	10,000
Total principal amount	<u>\$ 51,782,880</u>	<u>\$ 54,157,305</u>

Note 13 - 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 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. Annually, the FHLBanks must set aside for the AHP the greater of \$100 million or 10 percent of net earnings. For purposes of the AHP calculation, net earnings 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 net earnings. The FHLB reduces the AHP liability as Members use subsidies.

Table 13.1 - Analysis of AHP Liability (in thousands)

Balance at December 31, 2017	\$ 109,877
Assessments (current year additions)	9,252
Subsidy uses, net	(4,565)
Balance at March 31, 2018	<u>\$ 114,564</u>

Note 14 - Capital
Table 14.1 - Capital Requirements (dollars in thousands)

	March 31, 2018		December 31, 2017	
	Minimum Requirement	Actual	Minimum Requirement	Actual
Risk-based capital	\$ 949,326	\$ 5,513,076	\$ 886,033	\$ 5,211,204
Capital-to-assets ratio (regulatory)	4.00%	4.94%	4.00%	4.88%
Regulatory capital	\$ 4,468,372	\$ 5,513,076	\$ 4,275,809	\$ 5,211,204
Leverage capital-to-assets ratio (regulatory)	5.00%	7.40%	5.00%	7.31%
Leverage capital	\$ 5,585,465	\$ 8,269,614	\$ 5,344,761	\$ 7,816,806

Restricted Retained Earnings. At March 31, 2018 and December 31, 2017 the FHLB had (in thousands) \$339,564 and \$322,999 in restricted retained earnings. These restricted retained earnings are not available to pay dividends but are available to absorb unexpected losses, if any, that the FHLB may experience.

Table 14.2 - Mandatorily Redeemable Capital Stock Roll Forward (in thousands)

Balance, December 31, 2017	\$ 30,031
Capital stock subject to mandatory redemption reclassified from equity	65
Redemption (or other reduction) of mandatorily redeemable capital stock	(1,998)
Balance, March 31, 2018	<u>\$ 28,098</u>

Table 14.3 - Mandatorily Redeemable Capital Stock by Contractual Year of Redemption (in thousands)

Contractual Year of Redemption	March 31, 2018	December 31, 2017
Year 1	\$ 1,677	\$ 20
Year 2	206	1,811
Year 3	224	439
Year 4	2,827	2,912
Year 5	4,586	5,257
Thereafter ⁽¹⁾	624	610
Past contractual redemption date due to remaining activity ⁽²⁾	17,954	18,982
Total	<u>\$ 28,098</u>	<u>\$ 30,031</u>

- (1) Represents mandatorily redeemable capital stock resulting from a Finance Agency rule effective February 2016, that made captive insurance companies ineligible for FHLB membership. Captive insurance companies that were admitted as FHLB Members prior to September 12, 2014, will have their membership terminated no later than February 19, 2021. Captive insurance companies that were admitted as FHLB Members on or after September 12, 2014, had their membership terminated no later than February 19, 2017. 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 15 - Accumulated Other Comprehensive (Loss) Income

The following tables summarize the changes in accumulated other comprehensive (loss) income for the three months ended March 31, 2018 and 2017.

Table 15.1 - Accumulated Other Comprehensive (Loss) Income (in thousands)

	Net unrealized gains (losses) on available-for-sale securities	Pension and postretirement benefits	Total accumulated other comprehensive (loss) income
BALANCE, DECEMBER 31, 2016	\$ 23	\$ (13,279)	\$ (13,256)
Other comprehensive income before reclassification:			
Net unrealized losses	(26)	—	(26)
Reclassifications from other comprehensive income to net income:			
Amortization - pension and postretirement benefits	—	342	342
Net current period other comprehensive (loss) income	(26)	342	316
BALANCE, MARCH 31, 2017	<u>\$ (3)</u>	<u>\$ (12,937)</u>	<u>\$ (12,940)</u>
BALANCE, DECEMBER 31, 2017	\$ (124)	\$ (16,536)	\$ (16,660)
Other comprehensive income before reclassification:			
Net unrealized gains	143	—	143
Reclassifications from other comprehensive income to net income:			
Amortization - pension and postretirement benefits	—	486	486
Net current period other comprehensive income	143	486	629
BALANCE, MARCH 31, 2018	<u>\$ 19</u>	<u>\$ (16,050)</u>	<u>\$ (16,031)</u>

Note 16 - 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 \$2,526,000 and \$1,645,000 in the three months ended March 31, 2018 and 2017, respectively.

Qualified Defined Contribution Plan. The FHLB also participates in the Pentegra Defined Contribution Plan for Financial Institutions, a tax-qualified, defined contribution pension 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 limitations. The FHLB contributed \$477,000 and \$453,000 in the three months ended March 31, 2018 and 2017, respectively.

Nonqualified Supplemental Defined Benefit Retirement Plan (Defined Benefit Retirement Plan). The FHLB maintains a nonqualified, 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 16.1 - Net Periodic Benefit Cost (in thousands)

	Three Months Ended March 31,			
	Defined Benefit Retirement Plan		Postretirement Benefits Plan	
	2018	2017	2018	2017
<u>Net Periodic Benefit Cost</u>				
Service cost	\$ 276	\$ 204	\$ 5	\$ 7
Interest cost	332	325	41	50
Amortization of net loss	486	341	—	1
Net periodic benefit cost	<u>\$ 1,094</u>	<u>\$ 870</u>	<u>\$ 46</u>	<u>\$ 58</u>

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 17 - 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 17.1 - Financial Performance by Operating Segment (in thousands)

	Three Months Ended March 31,		
	Traditional Member Finance	MPP	Total
<u>2018</u>			
Net interest income	\$ 93,084	\$ 24,976	\$ 118,060
Non-interest (loss) income	(6,190)	2,333	(3,857)
Non-interest expense	18,864	3,260	22,124
Income before assessments	68,030	24,049	92,079
Affordable Housing Program assessments	6,847	2,405	9,252
Net income	<u>\$ 61,183</u>	<u>\$ 21,644</u>	<u>\$ 82,827</u>
<u>2017</u>			
Net interest income	\$ 79,874	\$ 23,399	\$ 103,273
Non-interest (loss) income	(9,565)	(1,148)	(10,713)
Non-interest expense	17,140	2,926	20,066
Income before assessments	53,169	19,325	72,494
Affordable Housing Program assessments	5,363	1,933	7,296
Net income	<u>\$ 47,806</u>	<u>\$ 17,392</u>	<u>\$ 65,198</u>

Table 17.2 - Asset Balances by Operating Segment (in thousands)

	Assets		
	Traditional Member Finance	MPP	Total
March 31, 2018	\$ 100,063,445	\$ 11,645,850	\$ 111,709,295
December 31, 2017	95,525,754	11,369,460	106,895,214

Note 18 - 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. An entity must disclose the level within the fair value hierarchy in which the measurements are classified.

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.

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.

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. Such reclassifications are reported as transfers in/out at fair value as of the beginning of the quarter in which the changes occur. The FHLB did not have any transfers of assets or liabilities recorded at fair value on a recurring basis during the three months ended March 31, 2018 or 2017.

Table 18.1 presents the carrying value, fair value, and fair value hierarchy of financial assets and liabilities of the FHLB. The FHLB records trading securities, available-for-sale securities, derivative assets, derivative liabilities, certain Advances and certain Consolidated Obligation Bonds 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 18.2 for further details about the financial assets and liabilities held at fair value on either a recurring or non-recurring basis.

Table 18.1 - Fair Value Summary (in thousands)

Financial Instruments	March 31, 2018					
	Carrying Value	Fair Value				Netting Adjustments and Cash Collateral ⁽¹⁾
		Total	Level 1	Level 2	Level 3	
Assets:						
Cash and due from banks	\$ 1,853,185	\$ 1,853,185	\$ 1,853,185	\$ —	\$ —	\$ —
Interest-bearing deposits	250	250	—	250	—	—
Securities purchased under agreements to resell	1,636,078	1,636,084	—	1,636,084	—	—
Federal funds sold	17,775,000	17,775,000	—	17,775,000	—	—
Trading securities	725	725	—	725	—	—
Available-for-sale securities	500,019	500,019	—	500,019	—	—
Held-to-maturity securities	16,100,460	15,860,830	—	15,860,830	—	—
Advances ⁽²⁾	63,882,874	63,781,530	—	63,781,530	—	—
Mortgage loans held for portfolio, net	9,731,171	9,564,262	—	9,546,737	17,525	—
Accrued interest receivable	148,807	148,807	—	148,807	—	—
Derivative assets	61,877	61,877	—	14,509	—	47,368
Liabilities:						
Deposits	683,398	683,225	—	683,225	—	—
Consolidated Obligations:						
Discount Notes	53,089,129	53,090,142	—	53,090,142	—	—
Bonds ⁽³⁾	51,767,306	51,413,846	—	51,413,846	—	—
Mandatorily redeemable capital stock	28,098	28,098	28,098	—	—	—
Accrued interest payable	128,586	128,586	—	128,586	—	—
Derivative liabilities	3,111	3,111	—	9,528	—	(6,417)
Other:						
Standby bond purchase agreements	—	513	—	513	—	—

(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) \$4,971 of Advances recorded under the fair value option at March 31, 2018.

(3) Includes (in thousands) \$5,966,827 of Consolidated Obligation Bonds recorded under the fair value option at March 31, 2018.

December 31, 2017

Financial Instruments	Carrying Value	Fair Value				Netting Adjustments and Cash Collateral⁽¹⁾⁽²⁾
		Total	Level 1	Level 2	Level 3	
Assets:						
Cash and due from banks	\$ 26,550	\$ 26,550	\$ 26,550	\$ —	\$ —	\$ —
Interest-bearing deposits	140	140	—	140	—	—
Securities purchased under agreements to resell	7,701,929	7,701,934	—	7,701,934	—	—
Federal funds sold	3,650,000	3,650,000	—	3,650,000	—	—
Trading securities	781	781	—	781	—	—
Available-for-sale securities	899,876	899,876	—	899,876	—	—
Held-to-maturity securities	14,804,970	14,682,329	—	14,682,329	—	—
Advances ⁽³⁾	69,918,224	69,894,641	—	69,894,641	—	—
Mortgage loans held for portfolio, net	9,680,940	9,731,947	—	9,714,802	17,145	—
Accrued interest receivable	128,561	128,561	—	128,561	—	—
Derivative assets	60,695	60,695	—	64,317	—	(3,622)
Liabilities:						
Deposits	650,531	650,422	—	650,422	—	—
Consolidated Obligations:						
Discount Notes	46,210,458	46,209,716	—	46,209,716	—	—
Bonds ⁽⁴⁾	54,163,061	54,095,627	—	54,095,627	—	—
Mandatorily redeemable capital stock	30,031	30,031	30,031	—	—	—
Accrued interest payable	128,652	128,652	—	128,652	—	—
Derivative liabilities	2,893	2,893	—	9,800	—	(6,907)
Other:						
Commitments to extend credit for Advances	—	4	—	4	—	—
Standby bond purchase agreements	—	354	—	354	—	—

(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) To conform with current presentation, (in thousands) \$74,431 in variation margin has been allocated to the individual derivative instrument as of December 31, 2017. Previously, this amount was included with Netting Adjustments and Cash Collateral.

(3) Includes (in thousands) \$15,013 of Advances recorded under the fair value option at December 31, 2017.

(4) Includes (in thousands) \$5,577,315 of Consolidated Obligation Bonds recorded under the fair value option at December 31, 2017.

Summary of Valuation Methodologies and Primary Inputs.

A description of 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 19 - Fair Value Disclosures in the FHLB's 2017 Annual Report on Form 10-K. There have been no changes in the valuation methodologies during 2018.

Fair Value Measurements.

Table 18.2 presents the fair value of financial assets and liabilities that are recorded on a recurring or nonrecurring basis at March 31, 2018 and December 31, 2017, by level within the fair value hierarchy. The FHLB records nonrecurring fair value adjustments to reflect partial write-downs on certain mortgage loans.

Table 18.2 - Fair Value Measurements (in thousands)

	Fair Value Measurements at March 31, 2018				
	Total	Level 1	Level 2	Level 3	Netting Adjustments and Cash Collateral ⁽¹⁾
Recurring fair value measurements - Assets					
Trading securities:					
U.S. obligation single-family MBS	\$ 725	\$ —	\$ 725	\$ —	\$ —
Available-for-sale securities:					
Certificates of deposit	500,019	—	500,019	—	—
Advances	4,971	—	4,971	—	—
Derivative assets:					
Interest rate related	61,500	—	14,132	—	47,368
Mortgage delivery commitments	377	—	377	—	—
Total derivative assets	61,877	—	14,509	—	47,368
Total assets at fair value	\$ 567,592	\$ —	\$ 520,224	\$ —	\$ 47,368
Recurring fair value measurements - Liabilities					
Consolidated Obligation Bonds	\$ 5,966,827	\$ —	\$ 5,966,827	\$ —	\$ —
Derivative liabilities:					
Interest rate related	1,276	—	7,693	—	(6,417)
Forward rate agreement	1,269	—	1,269	—	—
Mortgage delivery commitments	566	—	566	—	—
Total derivative liabilities	3,111	—	9,528	—	(6,417)
Total liabilities at fair value	\$ 5,969,938	\$ —	\$ 5,976,355	\$ —	\$ (6,417)
Nonrecurring fair value measurements - Assets ⁽²⁾					
Mortgage loans held for portfolio	\$ 325	\$ —	\$ —	\$ 325	

(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 three months ended March 31, 2018.

Fair Value Measurements at December 31, 2017

	<u>Total</u>	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>	<u>Netting Adjustments and Cash Collateral⁽¹⁾⁽²⁾</u>
Recurring fair value measurements - Assets					
Trading securities:					
U.S. obligation single-family MBS	\$ 781	\$ —	\$ 781	\$ —	\$ —
Available-for-sale securities:					
Certificates of deposit	899,876	—	899,876	—	—
Advances	15,013	—	15,013	—	—
Derivative assets:					
Interest rate related	60,215	—	63,837	—	(3,622)
Forward rate agreements	27	—	27	—	—
Mortgage delivery commitments	453	—	453	—	—
Total derivative assets	60,695	—	64,317	—	(3,622)
Total assets at fair value	<u>\$ 976,365</u>	<u>\$ —</u>	<u>\$ 979,987</u>	<u>\$ —</u>	<u>\$ (3,622)</u>
Recurring fair value measurements - Liabilities					
Consolidated Obligation Bonds	\$ 5,577,315	\$ —	\$ 5,577,315	\$ —	\$ —
Derivative liabilities:					
Interest rate related	2,646	—	9,553	—	(6,907)
Forward rate agreements	230	—	230	—	—
Mortgage delivery commitments	17	—	17	—	—
Total derivative liabilities	2,893	—	9,800	—	(6,907)
Total liabilities at fair value	<u>\$ 5,580,208</u>	<u>\$ —</u>	<u>\$ 5,587,115</u>	<u>\$ —</u>	<u>\$ (6,907)</u>
Nonrecurring fair value measurements - Assets⁽³⁾					
Mortgage loans held for portfolio	\$ 598	\$ —	\$ —	\$ 598	

(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) To conform with current presentation, (in thousands) \$74,431 in variation margin has been allocated to the individual derivative instrument as of December 31, 2017. Previously, this amount was included with Netting Adjustments and Cash Collateral.

(3) The fair value information presented is as of the date the fair value adjustment was recorded during the year ended December 31, 2017.

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 Bonds 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 18.3 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, 2018 and 2017.

Table 18.3 – Fair Value Option - Financial Assets and Liabilities (in thousands)

Net Gains (Losses) from Changes in Fair Value Recognized in Earnings	Three Months Ended March 31,	
	2018	2017
Advances	\$ (28)	\$ (16)
Consolidated Bonds	19,753	(6,045)
Total net gains (losses)	\$ 19,725	\$ (6,061)

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, 2018 or 2017. 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 Bonds for which the fair value option has been elected.

Table 18.4 – Aggregate Unpaid Balance and Aggregate Fair Value (in thousands)

	March 31, 2018			December 31, 2017		
	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 ⁽¹⁾	\$ 5,000	\$ 4,971	\$ (29)	\$ 15,000	\$ 15,013	\$ 13
Consolidated Bonds	6,032,840	5,966,827	(66,013)	5,624,265	5,577,315	(46,950)

(1) At March 31, 2018 and December 31, 2017, none of the Advances were 90 days or more past due or had been placed on non-accrual status.

Note 19 - Commitments and Contingencies

Table 19.1 - Off-Balance Sheet Commitments (in thousands)

Notional Amount	March 31, 2018			December 31, 2017		
	Expire within one year	Expire after one year	Total	Expire within one year	Expire after one year	Total
Standby Letters of Credit	\$ 15,284,254	\$ 321,485	\$ 15,605,739	\$ 14,388,745	\$ 302,237	\$ 14,690,982
Commitments for standby bond purchases	23,510	48,365	71,875	27,230	44,645	71,875
Commitments to fund additional Advances	—	—	—	5,000	—	5,000
Commitments to purchase mortgage loans	252,298	—	252,298	218,651	—	218,651
Unsettled Consolidated Discount Notes, principal amount ⁽¹⁾	—	—	—	309,662	—	309,662

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

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 20 - 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, 2018 or December 31, 2017. 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, 2018 and 2017.

Table 20.1 - Lending and Borrowing Between the FHLB and Other FHLBanks (in thousands)

	Average Daily Balances for the Three Months Ended March 31,	
	2018	2017
Loans to other FHLBanks	\$ 5,556	\$ 56

In addition, the FHLB may, from time to time, assume the outstanding primary liability for Consolidated Obligations of another FHLB (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, 2018 or 2017. The FHLB had no Consolidated Obligations transferred to other FHLBanks during these periods.

Note 21 - 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, 2018 or December 31, 2017.

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 may provide 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, 2018 or December 31, 2017.

Table 21.1 - Transactions with Directors' Financial Institutions (dollars in millions)

	March 31, 2018		December 31, 2017	
	Balance	% of Total ⁽¹⁾	Balance	% of Total ⁽¹⁾
Advances	\$ 4,992	7.8%	\$ 3,558	5.1%
MPP	582	6.1	112	1.2
Regulatory capital stock	458	10.1	187	4.4

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

	Regulatory Capital Stock		Advance Principal	MPP Unpaid Principal Balance
	Balance	% of Total		
March 31, 2018				
JPMorgan Chase Bank, N.A.	\$ 1,059	23%	\$ 24,200	\$ —
U.S. Bank, N.A.	836	18	9,475	22
The Huntington National Bank	282	6	1,681	482
Fifth Third Bank	248	5	415	2
December 31, 2017				
JPMorgan Chase Bank, N.A.	\$ 1,059	25%	\$ 23,950	\$ —
U.S. Bank, N.A.	593	14	8,975	23
The Huntington National Bank	282	7	3,732	456
Fifth Third Bank	248	6	3,140	2

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, 2018 or December 31, 2017. The FHLB has executed standby bond purchase agreements with one state housing authority 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 2018 and 2017, 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 events, including legislative, regulatory, federal 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) 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;
- the ability to attract and retain skilled management and other key employees;
- the ability to develop 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, 2018	December 31, 2017	September 30, 2017	June 30, 2017	March 31, 2017
<u>STATEMENT OF CONDITION DATA AT PERIOD END:</u>					
Total assets	\$ 111,709	\$ 106,895	\$ 105,251	\$ 109,053	\$ 96,328
Advances	63,883	69,918	67,943	71,088	61,286
Mortgage loans held for portfolio	9,732	9,682	9,505	9,448	9,293
Allowance for credit losses on mortgage loans	1	1	1	1	1
Investments ⁽¹⁾	36,012	27,058	27,575	27,934	25,526
Consolidated Obligations, net:					
Discount Notes	53,089	46,211	49,540	49,360	36,298
Bonds	51,767	54,163	49,298	53,359	53,497
Total Consolidated Obligations, net	104,856	100,374	98,838	102,719	89,795
Mandatorily redeemable capital stock	28	30	32	36	32
Capital:					
Capital stock - putable	4,524	4,241	4,229	4,220	4,173
Retained earnings	961	940	915	890	853
Accumulated other comprehensive loss	(16)	(16)	(12)	(12)	(13)
Total capital	5,469	5,165	5,132	5,098	5,013
<u>STATEMENT OF INCOME DATA FOR THE QUARTER:</u>					
Net interest income after provision for credit losses	\$ 118	\$ 110	\$ 110	\$ 106	\$ 103
Non-interest (loss) income	(4)	2	(3)	10	(11)
Non-interest expense	22	19	20	20	20
Affordable Housing Program assessments	9	9	9	9	7
Net income	\$ 83	\$ 84	\$ 78	\$ 87	\$ 65
<u>FINANCIAL RATIOS FOR THE QUARTER:</u>					
Dividend payout ratio ⁽²⁾	74.1%	69.7%	69.1%	56.3%	71.9%
Weighted average dividend rate ⁽³⁾	5.75	5.50	5.25	4.75	4.50
Return on average equity	6.23	6.42	5.97	6.94	5.25
Return on average assets	0.30	0.33	0.30	0.35	0.26
Net interest margin ⁽⁴⁾	0.44	0.43	0.42	0.42	0.41
Average equity to average assets	4.89	5.10	4.95	4.99	4.97
Regulatory capital ratio ⁽⁵⁾	4.94	4.88	4.92	4.72	5.25
Operating expense to average assets ⁽⁶⁾	0.066	0.058	0.061	0.056	0.065

- (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 before provision for credit losses 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.

Financial Condition

Mission Asset Activity

The following table summarizes our financial condition.

(In millions)	Ending Balances			Average Balances		
	March 31,		December 31,	Three Months Ended		Year Ended
	2018	2017	2017	March 31,	2017	December 31,
	2018	2017	2017	2018	2017	2017
Total Assets	\$ 111,709	\$ 96,328	\$ 106,895	\$ 110,162	\$ 101,228	\$ 101,917
Mission Asset Activity:						
Advances (principal)	63,985	61,320	69,978	73,217	67,350	67,683
Mortgage Purchase Program (MPP):						
Mortgage loans held for portfolio (principal)	9,509	9,075	9,454	9,494	9,063	9,224
Mandatory Delivery Contracts (notional)	252	332	219	213	271	293
Total MPP	9,761	9,407	9,673	9,707	9,334	9,517
Letters of Credit (notional)	15,606	17,411	14,691	15,112	17,079	16,457
Total Mission Asset Activity	\$ 89,352	\$ 88,138	\$ 94,342	\$ 98,036	\$ 93,763	\$ 93,657

In the first three months of 2018, the FHLB fulfilled its mission by providing a key source of readily available and competitively priced wholesale funding to its Member financial institutions, supporting its commitment to affordable housing and community investment, and paying stockholders a competitive dividend return on their capital investment.

The balance of Mission Asset Activity – which we define as Advances, Letters of Credit, and total MPP (including purchase commitments) – was \$89.4 billion at March 31, 2018, a decrease of \$5.0 billion (five percent) from year-end 2017, primarily driven by lower Advance balances. Advance principal balances decreased \$6.0 billion (nine percent) primarily due to a reduction in borrowings from a few large-asset Members at the end of the quarter. At March 31, 2018, 70 percent of Members held Mission Asset Activity, which was relatively stable compared to prior periods.

Based on the most-recently available figures, Members funded an average of 3.0 percent of their assets with Advances. As in recent years, most Members continued to have modest demand for Advance borrowings.

The MPP principal balance rose \$0.1 billion (one percent) from year-end 2017. During the first three months of 2018, we purchased \$0.3 billion of mortgage loans, while principal reductions totaled \$0.2 billion.

Based on earnings in the first three months of 2018, we accrued \$9 million for the Affordable Housing Program (AHP) pool of funds to be available to Members in 2019. In addition to the required AHP assessment, we continued our voluntary sponsorship of two other housing programs, which provide resources to pay for accessibility rehabilitation and emergency repairs for special needs and elderly homeowners and to help Members aid their communities following natural disasters.

Investments and Other Assets

The balance of investments at March 31, 2018 was \$36.0 billion, an increase of \$9.0 billion (33 percent) from year-end 2017. The increase in investments was driven by higher liquidity investments, which can vary by up to several billion dollars on a daily basis during times of volatility in Advance balances. At March 31, 2018, investments included \$16.1 billion of mortgage-backed securities (MBS) and \$19.9 billion of other investments, which were mostly short-term instruments held for liquidity. All of our MBS held at March 31, 2018 were issued and guaranteed by Fannie Mae, Freddie Mac or a U.S. agency.

Investments averaged \$27.0 billion in the first three months of 2018, an increase of \$2.7 billion from the average balance during the same period of 2017 primarily driven by higher liquidity investments.

The larger than normal cash balance of \$1.9 billion at March 31, 2018 was a result of holding deposits at the Federal Reserve due to fewer eligible counterparties for certain types of liquidity investments on that date.

We maintained a robust amount of asset liquidity throughout the first three months of 2018 across a variety of liquidity measures as discussed in the "Liquidity Risk" section of "Quantitative and Qualitative Disclosures About Risk Management."

Capital

Capital adequacy remained strong in the first three months of 2018, surpassing all minimum regulatory capital requirements. The GAAP capital-to-assets ratio at March 31, 2018 was 4.90 percent, while the regulatory capital-to-assets ratio was 4.94 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. The amounts of GAAP and regulatory capital increased \$304 million and \$302 million, respectively, in the first three months of 2018, due to purchases of capital stock associated with Advance activity and the growth in retained earnings.

Retained earnings totaled \$961 million at March 31, 2018, an increase of \$21 million (two percent) from year-end 2017. We believe the amount of retained earnings is sufficient to protect against Members' impairment risk of their capital stock investment in the FHLB and to provide the opportunity to stabilize or augment future dividends. Our capital policies and Capital Plan also have safeguards to ensure we meet regulatory and prudential capital requirements.

Results of Operations

Overall Results

The table below summarizes our results of operations.

(Dollars in millions)	Three Months Ended March 31,		Year Ended
	2018	2017	December 31, 2017
Net income	\$ 83	\$ 65	\$ 314
Affordable Housing Program assessments	9	7	35
Return on average equity (ROE)	6.23%	5.25%	6.15%
Return on average assets	0.30	0.26	0.31
Weighted average dividend rate	5.75	4.50	5.00
Average 3-month LIBOR	1.93	1.07	1.26
ROE spread to 3-month LIBOR	4.30	4.18	4.89
Dividend rate spread to 3-month LIBOR	3.82	3.43	3.74

Net income increased \$18 million (27 percent) in the first three months of 2018, which was primarily the result of higher net interest income. The increase in net interest income was driven mostly by higher short-term interest rates, which improved earnings from funding assets with interest-free capital, and the growth in average asset balances.

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

In March 2018, we paid stockholders a quarterly 5.75 percent annualized dividend rate on their capital investment in our company, an increase of 25 basis points from the dividend rate paid in December 2017. The increase in our dividend rate paid has been driven in large part by the effects of higher shorter-term interest rates.

We believe that our operations and financial condition will continue to generate competitive profitability, reflecting the combination of a stable business model, and a consistent and conservative management of risk. Our business model is structured to be able to absorb sharp changes in Mission Asset Activity because we can undertake commensurate changes in liability balances and capital. Factors that can cause significant periodic earnings volatility currently are changes in the level of interest rates, changes in spreads between LIBOR and our short-term funding costs, recognition of net amortization, and unrealized fair value adjustments related to the use of derivatives.

Effect of Interest Rate Environment

Trends in market interest rates strongly influence the results of operations and profitability via 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 2018		Year 2017		Quarter 1 2017	
	Ending	Average	Ending	Average	Ending	Average
Federal funds effective	1.67%	1.45%	1.33%	1.00%	0.82%	0.70%
3-month LIBOR	2.31	1.93	1.69	1.26	1.15	1.07
2-year LIBOR	2.58	2.40	2.08	1.65	1.62	1.56
10-year LIBOR	2.79	2.77	2.40	2.29	2.38	2.38
2-year U.S. Treasury	2.27	2.15	1.89	1.39	1.26	1.23
10-year U.S. Treasury	2.74	2.76	2.41	2.33	2.39	2.44
15-year mortgage current coupon ⁽¹⁾	3.03	2.93	2.52	2.40	2.48	2.50
30-year mortgage current coupon ⁽¹⁾	3.47	3.40	3.00	3.03	3.14	3.18

(1) Simple average of current coupon rates of Fannie Mae and Freddie Mac par MBS indications.

In March 2018, the target overnight Federal funds increased from a 1.25 to 1.50 percent range to a 1.50 to 1.75 percent range. The gradually rising, but relatively low, interest rate environment continued to benefit income during the first three months of 2018 primarily because of earnings generated by funding assets with interest-free capital.

Average short-term rates were approximately 0.90 percentage points higher in the first three months of 2018 compared to the same period of 2017, while average long-term rates increased approximately 0.40 percentage points during that same period. The increase contributed to a slowdown of activity in the mortgage market and led to a decline in the volume of mortgage loan purchases. However, the impact of fewer purchases was offset by a slower pace of portfolio paydowns.

We expect the recent movements in both short- and long-term rates will have only a modest overall effect on results of operations and profitability, outside of temporary fluctuations from net amortization and unrealized fair value adjustments on derivatives.

Effect of Economy and Financial Markets on Mission Asset Activity

Demand for Advances is affected by the accessibility and cost of other sources of liquidity, such as deposits, available to Members. In the last several years, the percentage of assets that Members funded with Advances ranged from three to four percent. The relative balance between loan and deposit fluctuations can provide an indication of potential Member Advance demand. From December 31, 2016 to December 31, 2017 (the most recent period for which data are available), aggregate loan portfolios of Fifth District depository institutions grew \$77.1 billion (5.1 percent) while their aggregate deposit balances rose \$100.3 billion (4.2 percent). Most of the loan and deposit growth in this period occurred from our larger Members, which is consistent with the concentration of nationwide financial activity. We may see a broad-based increase in Advance demand if one or more of the following occur: aggregate loan portfolios of our Members grow more quickly than aggregate deposits, the economy experiences a sustained and larger growth trend, interest rates continue to increase over time, or changes in Federal Reserve policy reduce other sources of liquidity available to Members.

Business Outlook and Risk Management

Our major business strategies, outlook for our business, and risk profiles and management have not changed substantially since our 2017 Annual Report on Form 10-K. “Quantitative and Qualitative Disclosures About Risk Management” provides details on current risk exposures.

ANALYSIS OF FINANCIAL CONDITION

Mission Asset Activity

Mission Assets 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. In the first three months of 2018, our Primary Mission Asset ratio, which measures the sum of average Advances and mortgage loans as a percentage of average Consolidated Obligations, was 80 percent, well above the Federal Housing Finance Agency (Finance Agency) 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.

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, 2018		December 31, 2017		March 31, 2017	
	Balance	Percent ⁽¹⁾	Balance	Percent ⁽¹⁾	Balance	Percent ⁽¹⁾
Adjustable/Variable-Rate Indexed:						
LIBOR	\$31,646	50%	\$32,420	47%	\$40,319	66%
Other	781	1	941	1	442	—
Total	32,427	51	33,361	48	40,761	66
Fixed-Rate:						
Repurchase based (REPO)	14,540	23	19,890	28	6,982	12
Regular Fixed-Rate	11,677	18	11,191	16	9,587	16
Putable ⁽²⁾	175	—	280	—	493	1
Amortizing/Mortgage Matched	2,810	4	2,776	4	2,656	4
Other	2,355	4	2,479	4	841	1
Total	31,557	49	36,616	52	20,559	34
Other Advances	1	—	1	—	—	—
Total Advances Principal	\$63,985	100%	\$69,978	100%	\$61,320	100%
Letters of Credit (notional)	\$15,606		\$14,691		\$17,411	

(1) As a percentage of total Advances principal.

(2) Excludes Putable Advances where the related put options have expired. These Advances are classified based on their current terms.

Advance balances at March 31, 2018 decreased nine percent compared to year-end 2017, as a result of lower REPO borrowings by several larger Members. However, the average Advance principal balance of \$73.2 billion during the first three months of 2018 was considerably higher than the ending balance at March 31, 2018. As shown in the table above, REPOs tend to be our most volatile Advance product because a majority of them have overnight maturities.

Letters of Credit balances at March 31, 2018 increased by six percent compared to the end of 2017. However, average Letters of Credit balances decreased 12 percent in the first three months of 2018 compared to the same period of 2017. 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 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, 2018	December 31, 2017
<u>Average Advances-to-Assets for Members</u>		
Assets less than \$1.0 billion (572 Members)	2.86%	3.04%
Assets over \$1.0 billion (86 Members)	4.10	4.95
All Members	3.03	3.28

The Advance usage ratio across all Members was lower at March 31, 2018, driven by a decrease in short-term borrowings by several larger Members.

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

(Dollars in millions)

March 31, 2018			December 31, 2017		
Name	Principal Amount of Advances	Percent of Total Principal Amount of Advances	Name	Principal Amount of Advances	Percent of Total Principal Amount of Advances
JPMorgan Chase Bank, N.A.	\$ 24,200	38%	JPMorgan Chase Bank, N.A.	\$ 23,950	34%
U.S. Bank, N.A.	9,475	15	U.S. Bank, N.A.	8,975	13
Third Federal Savings and Loan Association	3,714	6	Third Federal Savings and Loan Association	3,756	5
Pinnacle Bank	1,977	3	The Huntington National Bank	3,732	5
Nationwide Life Insurance Company	1,927	3	Fifth Third Bank	3,140	4
Total of Top 5	<u>\$ 41,293</u>	<u>65%</u>	Total of Top 5	<u>\$ 43,553</u>	<u>61%</u>

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 Asset Activity 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 Asset Activity.

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 2018.

(In millions)	March 31, 2018
Balance at December 31, 2017	\$ 9,454
Principal purchases	311
Principal reductions	(256)
Balance at March 31, 2018	<u>\$ 9,509</u>

Most of the principal purchases resulted from activity of our two largest sellers who drive program balances. In the first three months of 2018, 72 Members sold us mortgage loans, with the number of monthly sellers averaging 52. All loans acquired in the first three months of 2018 were conventional loans.

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 in the first three months of 2018 equated to a seven percent annual constant prepayment rate, down from the nine percent rate for all of 2017 due to an increase in mortgage rates.

The MPP's composition of balances by loan type, original final maturity, and weighted-average mortgage note rate did not change materially in the first three months of 2018. MPP yields earned in the first three months of 2018, after consideration of funding and hedging costs, continued to offer favorable returns relative to their market and credit risk exposure.

Investments

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

(In millions)	Three Months Ended		Year Ended	
	March 31, 2018		December 31, 2017	
	Ending Balance	Average Balance	Ending Balance	Average Balance
Liquidity investments	\$ 19,944	\$ 12,189	\$ 12,286	\$ 9,757
MBS	16,068	14,790	14,772	14,710
Other investments ⁽¹⁾	—	60	—	84
Total investments	<u>\$ 36,012</u>	<u>\$ 27,039</u>	<u>\$ 27,058</u>	<u>\$ 24,551</u>

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

We continued to maintain a robust amount of asset liquidity. Liquidity investment levels can vary significantly based on changes in the amount of Advances, liquidity needs, the availability of acceptable net spreads, and the number of eligible counterparties that meet our unsecured credit risk criteria. It is normal for liquidity investments to vary by up to several billion dollars on a daily basis. The higher amount of liquidity investments at March 31, 2018 was primarily due to volatility in Advance activity as there was a reduction in short-term Advance borrowings at the end of the first quarter.

Our overarching strategy for balances of MBS is to keep holdings as close as possible to the regulatory maximum of three times regulatory capital, subject to the availability of securities that we believe provide acceptable risk/return tradeoffs. The ratio of MBS to regulatory capital was 2.91 at March 31, 2018. The balance of MBS at March 31, 2018 consisted of \$13.7 billion of securities issued by Fannie Mae or Freddie Mac (of which \$8.0 billion were floating-rate securities), \$0.4 billion of floating-rate securities issued by the National Credit Union Administration (NCUA), and \$2.0 billion of securities issued by Ginnie Mae (which are primarily fixed rate). We held no private-label MBS.

The table below shows principal purchases and paydowns of our MBS for the first three months of 2018.

(In millions)	MBS Principal
Balance at December 31, 2017	\$ 14,746
Principal purchases	1,854
Principal paydowns	(557)
Balance at March 31, 2018	<u>\$ 16,043</u>

Principal paydowns in the first three months of 2018 equated to a 14 percent annual constant prepayment rate, compared to a 15 percent rate in all of 2017.

Consolidated Obligations

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

(In millions)	Three Months Ended		Year Ended	
	March 31, 2018		December 31, 2017	
	Ending Balance	Average Balance	Ending Balance	Average Balance
Discount Notes:				
Par	\$ 53,188	\$ 51,839	\$ 46,259	\$ 43,166
Discount	(99)	(71)	(48)	(42)
Total Discount Notes	53,089	51,768	46,211	43,124
Bonds:				
Unswapped fixed-rate	26,692	26,821	26,710	26,707
Unswapped adjustable-rate	18,100	18,224	20,895	18,500
Swapped fixed-rate	6,991	6,735	6,552	7,131
Total par Bonds	51,783	51,780	54,157	52,338
Other items ⁽¹⁾	(16)	(7)	6	29
Total Bonds	51,767	51,773	54,163	52,367
Total Consolidated Obligations ⁽²⁾	\$ 104,856	\$ 103,541	\$ 100,374	\$ 95,491

(1) Includes unamortized premiums/discounts, fair value option valuation adjustments, hedging and other basis adjustments.

(2) 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) \$1,019,229 and \$1,034,260 at March 31, 2018 and December 31, 2017, respectively.

We fund LIBOR-indexed assets with Discount Notes, adjustable-rate Bonds, and swapped fixed-rate Bonds because they give us the ability to effectively match the LIBOR reset periods embedded in these assets. The balance of Discount Notes was higher in the first three months of 2018 due to the increase in Advance activity throughout the quarter and the subsequent higher liquidity investments at March 31, 2018.

Deposits

Total deposits with us are normally a relatively minor source of low-cost funding. Total interest bearing deposits at March 31, 2018 were \$0.7 billion, an increase of five percent from year-end 2017. The average balance of total interest bearing deposits in the first three months of 2018 was \$0.6 billion, a decrease of \$0.2 billion from the average balance during the same period of 2017.

Derivatives Hedging Activity and Liquidity

Our use of derivatives is discussed in the "Effect of the Use of Derivatives on Net Interest Income" section 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.

(In millions)	Three Months Ended		Year Ended	
	March 31, 2018		December 31, 2017	
	Period End	Average	Period End	Average
GAAP and Regulatory Capital				
GAAP Capital Stock	\$ 4,524	\$ 4,416	\$ 4,241	\$ 4,183
Mandatorily Redeemable Capital Stock	28	30	30	46
Regulatory Capital Stock	4,552	4,446	4,271	4,229
Retained Earnings	961	989	940	928
Regulatory Capital	\$ 5,513	\$ 5,435	\$ 5,211	\$ 5,157
GAAP and Regulatory Capital-to-Assets Ratio				
GAAP	4.90%	4.89%	4.83%	5.00%
Regulatory ⁽¹⁾	4.94	4.93	4.88	5.06

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

GAAP capital stock increased seven percent from year-end 2017 due to Members' purchases of capital stock associated with Mission Asset Activity. 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.

A portion of capital stock is excess, meaning it is not required as a condition to being a Member and not required to capitalize Mission Asset Activity. Excess capital stock provides a base of capital to manage financial leverage at prudent levels, augments loss protections for bondholders, and capitalizes a portion of growth in Mission Assets. The amount of excess capital stock, as defined by our Capital Plan, was \$873 million at March 31, 2018, an increase from \$391 million at December 31, 2017. The reduction in Advance balances at the end of the first quarter resulted in the increase in excess stock. We could repurchase all excess stock on a timely basis and continue to meet our regulatory and prudential capital requirements. See the "Capital Adequacy" section in "Quantitative and Qualitative Disclosures About Risk Management" for discussion of our retained earnings.

Membership and Stockholders

In the first three months of 2018, we added one new Member stockholder and lost three Members, ending the quarter at 658 Member stockholders. The three Members lost merged with other Fifth District Members.

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, 2018 and 2017. 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,			
	2018		2017	
	Amount	ROE ⁽¹⁾	Amount	ROE ⁽¹⁾
Net interest income	\$ 118	8.88%	\$ 103	8.32%
Non-interest (loss) income:				
Net losses on derivatives and hedging activities	(27)	(1.98)	(8)	(0.65)
Net gains (losses) on financial instruments held under fair value option	20	1.48	(6)	(0.49)
Other non-interest income, net	3	0.21	3	0.28
Total non-interest (loss) income	(4)	(0.29)	(11)	(0.86)
Total income	114	8.59	92	7.46
Non-interest expense	22	1.66	20	1.62
Affordable Housing Program assessments	9	0.70	7	0.59
Net income	\$ 83	6.23%	\$ 65	5.25%

(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 the major components of net interest income.

(Dollars in millions)	Three Months Ended March 31,			
	2018		2017	
	Amount	% of Earning Assets	Amount	% of Earning Assets
Components of net interest rate spread:				
Net (amortization)/accretion ⁽¹⁾⁽²⁾	\$ (4)	(0.02)%	\$ (5)	(0.02)%
Other components of net interest rate spread	100	0.37	95	0.38
Total net interest rate spread	96	0.35	90	0.36
Earnings from funding assets with interest-free capital	22	0.09	13	0.05
Total net interest income/net interest margin ⁽³⁾	\$ 118	0.44 %	\$ 103	0.41 %

(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"): While net amortization has been substantial and volatile in several periods over the last five years, it was moderate in the first three months of both 2018 and 2017. Periodic amortization adjustments do not necessarily indicate a trend in economic return over the entire life of mortgage assets, although it is one component of lifetime economic returns.

Other Components of Net Interest Rate Spread: Excluding net amortization, the total other components of net interest rate spread increased \$5 million in the first three months of 2018 compared to the same period in 2017. The following factors primarily accounted for the net increase.

- **Growth in average asset balances-Favorable:** The \$8.9 billion increase in average asset balances increased net interest income by an estimated \$7 million. The increase was driven primarily by a \$5.8 billion increase in average Advance balances.
- **Higher spreads on mortgage-backed securities-Favorable:** Higher spreads earned on mortgage-backed securities increased net interest income by an estimated \$3 million. Spreads improved primarily due to the rising interest rate environment.
- **Lower spreads on Advances-Unfavorable:** Lower spreads earned on Advances decreased net interest income by an estimated \$3 million. Spreads were higher during the first quarter of 2017 compared to the spreads in the first quarter of 2018 primarily due to a larger amount of short-term and floating-rate Advances repricing to rising interest rates more quickly than the debt funding them.
- **Lower spreads on liquidity investments-Unfavorable:** Lower spreads earned on liquidity investments decreased net interest income by an estimated \$2 million. Spreads were higher in the first quarter of 2017 primarily due to a larger amount of liquidity investments repricing to rising interest rates more quickly than the debt funding them.

Earnings from Capital: Earnings from funding assets with interest-free capital increased \$9 million in the first three months of 2018 compared to the same period in 2017 primarily due to higher short-term interest rates.

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. Although Advance prepayment fees can be and have been significant in the past, they were minimal in the three months ended March 31, 2018 and 2017, reflecting a low amount of Member prepayments of Advances.

Average Balance Sheet and Rates

The following table provides average balances and rates for major balance sheet accounts, which determine the changes in the net interest rate spread. All data include the impact of interest rate swaps, which we allocate to each asset and liability category according to their designated hedging relationship.

(Dollars in millions)	Three Months Ended			Three Months Ended		
	March 31, 2018			March 31, 2017		
	Average Balance	Interest	Average Rate ⁽¹⁾	Average Balance	Interest	Average Rate ⁽¹⁾
Assets:						
Advances	\$ 73,131	\$ 318	1.77%	\$ 67,323	\$ 182	1.09%
Mortgage loans held for portfolio ⁽²⁾	9,719	78	3.24	9,280	72	3.17
Federal funds sold and securities purchased under resale agreements	11,353	42	1.49	8,984	15	0.69
Interest-bearing deposits in banks ⁽³⁾⁽⁴⁾⁽⁵⁾	863	3	1.59	881	2	0.83
Mortgage-backed securities	14,790	83	2.27	14,449	73	2.04
Other investments	33	—	1.53	32	—	0.56
Loans to other FHLBanks	5	—	1.46	—	—	—
Total interest-earning assets	109,894	524	1.93	100,949	344	1.38
Less: allowance for credit losses on mortgage loans	1			1		
Other assets	269			280		
Total assets	<u>\$ 110,162</u>			<u>\$ 101,228</u>		
Liabilities and Capital:						
Term deposits	\$ 53	—	1.32	\$ 132	—	0.48
Other interest bearing deposits ⁽⁵⁾	570	2	1.22	644	1	0.38
Discount Notes	51,768	181	1.42	42,058	57	0.55
Unswapped fixed-rate Bonds	26,875	136	2.05	26,112	128	1.98
Unswapped adjustable-rate Bonds	18,224	67	1.48	18,702	36	0.78
Swapped Bonds	6,674	20	1.23	7,920	19	0.98
Mandatorily redeemable capital stock	30	—	6.02	36	—	5.28
Other borrowings	—	—	—	—	—	—
Total interest-bearing liabilities	104,194	406	1.58	95,604	241	1.02
Non-interest bearing deposits	4			3		
Other liabilities	575			587		
Total capital	5,389			5,034		
Total liabilities and capital	<u>\$ 110,162</u>			<u>\$ 101,228</u>		
Net interest rate spread			0.35%			0.36%
Net interest income and net interest margin ⁽⁶⁾		\$ 118	0.44%		\$ 103	0.41%
Average interest-earning assets to interest-bearing liabilities			105.47%			105.59%

(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 short-term and adjustable-rate assets and liabilities were higher in the first three months of 2018 compared to the same period in 2017 due to the increases in short-term LIBOR and the Federal funds target rate. The result was an increase of more than 0.50 percentage points in both the net average rate on total interest-earning assets and interest-bearing liabilities.

There was little difference in the net interest rate spread in the first three months of 2018 compared to the same period in 2017. The increase in interest margin in the first three months of 2018 compared to the same period in 2017 was primarily driven by higher earnings from funding assets with interest-free capital.

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, 2018 over 2017		
	Volume ⁽¹⁾⁽³⁾	Rate ⁽²⁾⁽³⁾	Total
<u>Increase (decrease) in interest income</u>			
Advances	\$ 16	\$ 120	\$ 136
Mortgage loans held for portfolio	4	2	6
Federal funds sold and securities purchased under resale agreements	5	22	27
Interest-bearing deposits in banks	—	1	1
MBS	2	8	10
Other investments	—	—	—
Loans to other FHLBanks	—	—	—
Total	27	153	180
<u>Increase (decrease) in interest expense</u>			
Term deposits	—	—	—
Other interest-bearing deposits	—	1	1
Discount Notes	15	109	124
Unswapped fixed-rate Bonds	4	4	8
Unswapped adjustable-rate Bonds	(1)	32	31
Swapped Bonds	(3)	4	1
Mandatorily redeemable capital stock	—	—	—
Other borrowings	—	—	—
Total	15	150	165
Increase (decrease) in net interest income	\$ 12	\$ 3	\$ 15

(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 effect of using derivatives on net interest income. The effect on earnings from other components of derivatives, including market value adjustments, is provided in “Non-Interest Income and Non-Interest Expense.”

(In millions)	Three Months Ended March 31,	
	2018	2017
Advances:		
Amortization of hedging activities in net interest income	\$ —	\$ (1)
Net interest settlements included in net interest income	1	(7)
Mortgage loans:		
Amortization of derivative fair value adjustments in net interest income	(1)	(1)
Consolidated Obligation Bonds:		
Net interest settlements included in net interest income	(1)	1
Decrease to net interest income	<u>\$ (1)</u>	<u>\$ (8)</u>

Most of our use of derivatives synthetically convert the intermediate- and long-term fixed interest rates on certain Advances and Bonds to adjustable-coupon rates tied to short-term LIBOR (one- and three-month repricing resets). These adjustable-rate coupons normally carry lower interest rates than the fixed-rates, which reduces net interest income. However, the impact to earnings was minimal in the first three months of 2018 due to increases in short-term LIBOR.

Non-Interest Income and Non-Interest Expense

The following table presents non-interest income and non-interest expense for each of the three months ended March 31, 2018 and 2017.

(Dollars in millions)	Three Months Ended March 31,	
	2018	2017
<u>Non-interest (loss) income</u>		
Net losses on derivatives and hedging activities	\$ (27)	\$ (8)
Net gains (losses) on financial instruments held under fair value option	20	(6)
Other non-interest income, net	3	3
Total non-interest (loss) income	<u>\$ (4)</u>	<u>\$ (11)</u>
<u>Non-interest expense</u>		
Compensation and benefits	\$ 13	\$ 11
Other operating expense	5	5
Finance Agency	2	2
Office of Finance	1	1
Other	1	1
Total non-interest expense	<u>\$ 22</u>	<u>\$ 20</u>
Average total assets	\$ 110,162	\$ 101,228
Average regulatory capital	5,435	5,083
Total non-interest expense to average total assets ⁽¹⁾	0.08%	0.08%
Total non-interest expense to average regulatory capital ⁽¹⁾	1.65	1.60

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

The \$7 million increase in non-interest (loss) income in the first three months of 2018 compared to the same period in 2017 was primarily due to lower losses from derivatives and hedging activities, net of gains (losses) on financial instruments held under the fair value option. The table below presents further information on the net effect of derivatives and hedging activities on non-interest income. Non-interest expense was relatively stable in the first three months of 2018 and 2017.

Effect of Derivatives and Hedging Activities on Non-Interest Income

The following tables present the net effect of derivatives and hedging activities on non-interest income.

(In millions)	Three Months Ended March 31, 2018				
	Advances	Mortgage Loans	Consolidated Obligation Bonds	Balance Sheet ⁽¹⁾	Total
<u>Net effect of derivatives and hedging activities</u>					
Gains on fair value hedges	\$ 1	\$ —	\$ —	\$ —	\$ 1
Gains (losses) on derivatives not receiving hedge accounting	1	—	(33)	4	(28)
Total net gains (losses) on derivatives and hedging activities	2	—	(33)	4	(27)
Net gains on financial instruments held under fair value option ⁽²⁾	—	—	20	—	20
Total net effect on non-interest income	\$ 2	\$ —	\$ (13)	\$ 4	\$ (7)

(In millions)	Three Months Ended March 31, 2017				
	Advances	Mortgage Loans	Consolidated Obligation Bonds	Balance Sheet ⁽¹⁾	Total
<u>Net effect of derivatives and hedging activities</u>					
Gains (losses) on derivatives not receiving hedge accounting	\$ —	\$ 3	\$ (3)	\$ (8)	\$ (8)
Total net gains (losses) on derivatives and hedging activities	—	3	(3)	(8)	(8)
Net losses on financial instruments held under fair value option ⁽²⁾	—	—	(6)	—	(6)
Total net effect on non-interest income	\$ —	\$ 3	\$ (9)	\$ (8)	\$ (14)

(1) Balance sheet includes swaptions, which are not designated as hedging a specific financial instrument.

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

The total amount of income volatility in derivatives and hedging activities was moderate compared to the notional principal amounts and consistent with the close hedging relationships of our derivative transactions. The volatility represents both unrealized fair value gains and losses on instruments we expect to hold to maturity and the realized costs of utilizing swaptions to hedge market risk exposure associated with mortgage assets.

Segment Information

Note 17 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 summarizes each segment's operating results for the periods shown.

(Dollars in millions)	Traditional Member Finance	MPP	Total
Three Months Ended March 31, 2018			
Net interest income	\$ 93	\$ 25	\$ 118
Net income	\$ 61	\$ 22	\$ 83
Average assets	\$ 98,647	\$ 11,515	\$ 110,162
Assumed average capital allocation	\$ 4,826	\$ 563	\$ 5,389
Return on average assets ⁽¹⁾	0.25%	0.76%	0.30%
Return on average equity ⁽¹⁾	5.14%	15.59%	6.23%
Three Months Ended March 31, 2017			
Net interest income	\$ 80	\$ 23	\$ 103
Net income	\$ 48	\$ 17	\$ 65
Average assets	\$ 91,487	\$ 9,741	\$ 101,228
Assumed average capital allocation	\$ 4,550	\$ 484	\$ 5,034
Return on average assets ⁽¹⁾	0.21%	0.72%	0.26%
Return on average equity ⁽¹⁾	4.26%	14.57%	5.25%

(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

The increase in net income in the first three months of 2018 compared to the same period in 2017 was due primarily to higher earnings from funding assets with interest-free capital, the growth in average Advance and investment balances, and lower losses from derivatives and hedging activities, net of gains on financial instruments held under the fair value option.

MPP Segment

The MPP continued to earn a substantial level of profitability compared to market interest rates, with a moderate amount of market risk and a minimal amount of credit risk. In the first three months of 2018, the MPP averaged 10 percent of total average assets while accounting for 26 percent of earnings. Net income increased in the three months ended March 31, 2018 compared to the same period in 2017 primarily due to gains on derivative and hedging activities, lower amortization of purchased premiums on mortgage loans and from growth in average MPP balances.

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 low level of rates, the 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
<u>Average Results</u>							
<u>2018 Year-to-Date</u>							
Market Value of Equity	\$ 4,953	\$ 5,141	\$ 5,342	\$ 5,336	\$ 5,272	\$ 5,210	\$ 5,145
% Change from Flat Case	(7.2)%	(3.7)%	0.1 %	—	(1.2)%	(2.4)%	(3.6)%
<u>2017 Full Year</u>							
Market Value of Equity	\$ 4,702	\$ 4,765	\$ 4,973	\$ 5,021	\$ 4,956	\$ 4,881	\$ 4,815
% Change from Flat Case	(6.3)%	(5.1)%	(0.9)%	—	(1.3)%	(2.8)%	(4.1)%
<u>Month-End Results</u>							
<u>March 31, 2018</u>							
Market Value of Equity	\$ 4,985	\$ 5,164	\$ 5,358	\$ 5,344	\$ 5,272	\$ 5,208	\$ 5,141
% Change from Flat Case	(6.7)%	(3.4)%	0.3 %	—	(1.3)%	(2.5)%	(3.8)%
<u>December 31, 2017</u>							
Market Value of Equity	\$ 4,764	\$ 4,837	\$ 5,095	\$ 5,165	\$ 5,097	\$ 5,027	\$ 4,955
% Change from Flat Case	(7.8)%	(6.3)%	(1.3)%	—	(1.3)%	(2.7)%	(4.1)%

Duration of Equity

(In years)	Down 300	Down 200	Down 100	Flat Rates	Up 100	Up 200	Up 300
<u>Average Results</u>							
2018 Year-to-Date	(3.9)	(5.3)	(1.6)	1.1	1.1	1.3	1.3
2017 Full Year	(1.7)	(4.2)	(3.8)	0.4	1.6	1.4	1.4
<u>Month-End Results</u>							
March 31, 2018	(3.7)	(5.2)	(1.4)	1.3	1.1	1.3	1.3
December 31, 2017	(2.0)	(5.3)	(4.4)	0.5	1.5	1.4	1.5

The overall market risk exposure to changing interest rates was at a moderate level and well within policy limits. The durations of equity provide 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 unless interest rates change by extremely large amounts in a short period of time. Decreases in long-term interest rates, even by two percentage points, would still result in profitability being well above market interest rates. Similarly, we believe that profitability would not become uncompetitive in a rising rate environment unless interest rates were to permanently increase in a short period of time by five percentage points or more and persist at the higher levels for a long period of time.

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. At March 31, 2018, the average mortgage assets portfolio had an assumed capital allocation of \$1.2 billion based on the entire balance sheet's regulatory capital-to-assets ratio. Average results 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
<u>Average Results</u>							
2018 Year-to-Date	(34.9)%	(18.8)%	(1.9)%	—	(2.5)%	(4.9)%	(7.8)%
2017 Full Year	(36.1)%	(29.1)%	(6.8)%	—	(3.8)%	(8.6)%	(12.8)%
<u>Month-End Results</u>							
March 31, 2018	(36.6)%	(19.5)%	(1.5)%	—	(3.3)%	(6.1)%	(9.4)%
December 31, 2017	(39.4)%	(32.2)%	(8.7)%	—	(2.4)%	(4.9)%	(7.8)%

The risk exposure of the mortgage assets portfolio during the first three months of 2018 compared to all of 2017 was lower in both the rising and declining rate scenarios driven by our preference to keep our exposure to market risk low along with normal changes in balance sheet composition. 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, 2018, our capital management policy set forth a range of \$300 million to \$525 million as the minimum amount of retained earnings we believe is necessary to mitigate impairment risk from market risk exposure and to provide for dividend stability from factors that could cause earnings to be volatile. At March 31, 2018, the \$961 million of retained earnings was comprised of \$622 million unrestricted (an increase of \$5 million from year-end 2017) and \$339 million restricted (an increase of \$16 million from year-end 2017), which pursuant to the FHLBank System's Joint Capital Enhancement Agreement we are not permitted to distribute as dividends.

We believe that the current amount of retained earnings, which exceeds the policy range, is sufficient to mitigate Members' impairment risk of their capital stock investment and to provide for dividend stabilization. We will continue to carry a greater amount of retained earnings than required by the policy and will continue to bolster capital adequacy over time by allocating a portion of earnings to the required 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. 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, 2018	December 31, 2017
Market Value of Equity to Par Value of Regulatory Capital Stock - Base Case (Flat Rates) Scenario	117%	121%
Market Value of Equity to Par Value of Regulatory Capital Stock - Down Shock ⁽¹⁾	118	119
Market Value of Equity to Par Value of Regulatory Capital Stock - Up Shock ⁽²⁾	114	118

(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 (par) 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 2018, the market capitalization ratios in the scenarios presented continued to be above our policy requirements. Although the base case ratio of 117 percent was slightly lower at March 31, 2018 compared to the end of 2017, it was well above policy limits because retained earnings were 21 percent of regulatory capital stock at March 31, 2018 and we maintained risk exposures at moderate levels.

The following table presents the market value of equity to the book value of total capital.

	March 31, 2018	December 31, 2017
Market Value of Equity to Book Value of Capital - Base Case (Flat Rates) Scenario ⁽¹⁾	97%	99%
Market Value of Equity to Book Value of Capital - Down Shock ⁽¹⁾⁽²⁾	98	98
Market Value of Equity to Book Value of Capital - Up Shock ⁽¹⁾⁽³⁾	95	97

- (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 par indicates that we have realized or could realize risks (especially market risk) such that the market value of total capital owned by stockholders, which includes regulatory capital stock and retained earnings, is below par value (i.e., below 100 percent of the total book value). The base-case ratio of 97 percent at March 31, 2018 indicates that the market value of total capital is \$169 million below the par value of total capital. In a scenario in which interest rates increase 200 basis points, the market value of total capital would be \$305 million below the par 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, which include both capital stock and retained earnings. 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, bring the amount of residual credit risk to a minimal level. We have no loan loss reserves or impairment recorded for Credit Services, investments, and derivatives and a minimal amount of legacy credit risk exposure to 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 is to equalize risk exposure across Members and counterparties to a zero level of expected losses, consistent with our conservative risk management principles and desire to have virtually no residual credit risk related to Member borrowings.

Collateral: We require each Member to provide us a security interest in eligible collateral before it can undertake any secured borrowing. Eligible collateral includes single-family loans, multi-family loans, home equity loans and lines of credit, commercial real estate, bond securities and farm real estate. 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 if it must be liquidated. Over-collateralization by one Member is not applied to another Member. At March 31, 2018, our policy of over-collateralization resulted in total collateral pledged of \$334.9 billion to serve total borrowing capacity of \$277.3 billion of which \$197.7 billion was unused. The collateral composition remained relatively stable compared to the end of 2017.

Borrowing Capacity/Lendable Value: We determine borrowing capacity against pledged collateral by applying collateral discounts, or haircuts, to the value of the collateral. These haircuts result in Lendable Value Rates (LVRs) that are less than the amount of pledged collateral.

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, the issuer of bond collateral or the quality of securitized assets, the marketability

of the pledged assets, the payment performance of pledged loan collateral, and the quality of loan collateral as reflected in the manner in which it was underwritten.

Internal Credit Ratings: We perform credit underwriting of our Member and nonmember borrowers and assign them an internal credit rating. These credit ratings are based on internal 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 were no Member failures in 2018 through the date of this filing.

MPP

Overview: We believe that the residual amount of credit risk exposure to loans in the MPP is minimal, based on the same factors described in the 2017 Annual Report on Form 10-K. We believe, based on our analysis, that future credit losses will not harm capital adequacy and will not significantly affect profitability except under the most extreme and unlikely credit conditions.

Conventional Loan Portfolio Characteristics: The levels of loan-to-value ratios in the last several years are consistent with the portfolio's excellent credit quality. The positive trends reflect the sustained recovery and improvement in the overall housing market. At March 31, 2018, the weighted average loan-to-value ratios for conventional loans based on origination values and estimated current values were 74 percent and 60 percent, respectively. These ratios were similar at December 31, 2017.

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

(Dollars in millions)	Conventional Loan Delinquencies	
	March 31, 2018	December 31, 2017
Early stage delinquencies - unpaid principal balance ⁽¹⁾	\$ 45	\$ 43
Serious delinquencies - unpaid principal balance ⁽²⁾	\$ 18	\$ 17
Early stage delinquency rate ⁽³⁾	0.5%	0.5%
Serious delinquency rate ⁽⁴⁾	0.2%	0.2%
National average serious delinquency rate ⁽⁵⁾	2.2%	2.0%

(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, 2018 rate is based on December 31, 2017 data.

The MPP has experienced a small amount of delinquencies, with delinquency rates continuing to be well below national averages. This further supports our view that the overall 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 \$200 million and \$201 million at March 31, 2018 and December 31, 2017, respectively. For more information, see Note 9 of the Notes to Unaudited Financial Statements.

Credit Losses: The following table shows the effects of credit enhancements on the estimation of credit losses at the noted periods. Estimated incurred 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 millions)	March 31, 2018	December 31, 2017
Estimated incurred credit losses, before credit enhancements	\$ (6)	\$ (6)
Estimated amounts deemed recoverable by:		
Primary mortgage insurance	1	1
Supplemental mortgage insurance	3	3
Lender Risk Account	1	1
Estimated incurred credit losses, after credit enhancements	<u>\$ (1)</u>	<u>\$ (1)</u>

The minimal amount of incurred losses provides further support on the aggregate health of the portfolio. 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. 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, 2018.

In addition to the allowance for credit losses recorded, we regularly analyze potential ranges of additional lifetime credit risk exposure for the loans in the MPP. Even under adverse macroeconomic scenarios, 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. Liquidity investments are either unsecured, guaranteed 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.

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.

(In millions)

	March 31, 2018		
	Long-Term Rating		
	AA	A	Total
<u>Unsecured Liquidity Investments</u>			
Federal funds sold	\$ 8,765	\$ 9,010	\$ 17,775
Certificates of deposit	500	—	500
Total unsecured liquidity investments	9,265	9,010	18,275
<u>Guaranteed/Secured Liquidity Investments</u>			
Securities purchased under agreements to resell	1,636	—	1,636
U.S. Treasury obligations	33	—	33
Total guaranteed/secured liquidity investments	1,669	—	1,669
Total liquidity investments	<u>\$ 10,934</u>	<u>\$ 9,010</u>	<u>\$ 19,944</u>
	December 31, 2017		
	Long-Term Rating		
	AA	A	Total
<u>Unsecured Liquidity Investments</u>			
Federal funds sold	\$ 1,465	\$ 2,185	\$ 3,650
Certificates of deposit	800	100	900
Total unsecured liquidity investments	2,265	2,285	4,550
<u>Guaranteed/Secured Liquidity Investments</u>			
Securities purchased under agreements to resell	7,702	—	7,702
U.S. Treasury obligations	34	—	34
Total guaranteed/secured liquidity investments	7,736	—	7,736
Total liquidity investments	<u>\$ 10,001</u>	<u>\$ 2,285</u>	<u>\$ 12,286</u>

During the first three months of 2018, we purchased a portion of our total liquidity investments from counterparties for which the investments are secured with collateral (secured resale agreements). We believe these investments present virtually no credit risk exposure to us.

The following table presents credit ratings of our unsecured investment credit exposure by the domicile of the counterparty or the domicile of the counterparty's parent for U.S. branches and agency offices of foreign commercial banks.

(In millions)

Domicile of Counterparty	March 31, 2018		
	Counterparty Rating ⁽¹⁾		
	AA	A	Total
Domestic	\$ 1,765	\$ —	\$ 1,765
U.S. branches and agency offices of foreign commercial banks:			
Sweden	3,200	950	4,150
Canada	800	2,775	3,575
Germany	1,500	1,485	2,985
Australia	2,000	—	2,000
France	—	1,900	1,900
Netherlands	—	950	950
Norway	—	950	950
Total U.S. branches and agency offices of foreign commercial banks	7,500	9,010	16,510
Total unsecured investment credit exposure	\$ 9,265	\$ 9,010	\$ 18,275

(1) Represents the lowest long-term credit rating provided by Standard & Poor's, Moody's, and/or Fitch Advisory Services.

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 parent for U.S. branches and agency offices of foreign commercial banks.

(In millions)

Domicile of Counterparty	March 31, 2018			
	Overnight	Due 2 days through 30 days	Due 31 days through 90 days	Total
Domestic	\$ 1,765	\$ —	\$ —	\$ 1,765
U.S. branches and agency offices of foreign commercial banks:				
Sweden	3,950	200	—	4,150
Canada	3,275	—	300	3,575
Germany	2,985	—	—	2,985
Australia	2,000	—	—	2,000
France	1,900	—	—	1,900
Netherlands	950	—	—	950
Norway	950	—	—	950
Total U.S. branches and agency offices of foreign commercial banks	16,010	200	300	16,510
Total unsecured investment credit exposure	\$ 17,775	\$ 200	\$ 300	\$ 18,275

At March 31, 2018, all of the \$18.3 billion of unsecured investment exposure was to counterparties with holding companies domiciled in countries receiving either AAA or AA long-term sovereign ratings. Furthermore, we restrict a significant portion of unsecured lending to overnight maturities, which further limits risk exposure to these counterparties. By Finance Agency regulation, all counterparties exposed to non-U.S. countries are required to be domestic U.S. branches of foreign counterparties. We also limit exposure to counterparties and countries that could have significant direct or indirect exposure to European sovereign debt.

MBS:

GSE MBS

At March 31, 2018, \$13.7 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 and the NCUA. These investments totaled \$2.4 billion at March 31, 2018. We believe that the strength of the issuers' guarantees 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 credit ratings for derivative positions to which we had credit risk exposure at March 31, 2018.

(In millions)

	Total Notional	Net Derivatives Fair Value Before Collateral	Cash Collateral Pledged to (from) Counterparties	Net Credit Exposure to Counterparties
Nonmember counterparties:				
<u>Asset positions with credit exposure:</u>				
Uncleared derivatives:				
AA	\$ 369	\$ 3	\$ (3)	\$ —
Total uncleared derivatives	369	3	(3)	—
Cleared derivatives ⁽¹⁾	6,724	—	22	22
<u>Liability positions with credit exposure:</u>				
Cleared derivatives ⁽¹⁾	5,002	—	40	40
Total derivative positions with credit exposure to nonmember counterparties	12,095	3	59	62
Member institutions ⁽²⁾	153	—	—	—
Total	\$ 12,248	\$ 3	\$ 59	\$ 62

(1) Represents derivative transactions cleared with LCH Ltd. and CME Clearing, the FHLB's clearinghouses, which are not rated. LCH Ltd.'s ultimate parent, London Stock Exchange Group Plc is rated A3 by Moody's and A- by Standard & Poor's. CME Clearing's parent, 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 our requirement to post initial margin through the clearing agent to the Derivatives Clearing Organizations. The amount of cash collateral pledged as initial margin has increased from our use of cleared derivatives. However, the use of cleared derivatives mitigates credit risk exposure because a central counterparty is substituted for individual counterparties.

At March 31, 2018, the gross exposure of uncleared derivatives with residual credit risk exposure was \$3 million with the net exposure being less than \$1 million after consideration of the collateral pledged. Gross exposure would likely increase if interest rates rise and could increase if the composition of our derivatives change. However, contractual collateral provisions in these derivatives would limit 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, 2018, we had \$51 million of notional principal of interest rate swaps with one Member, JPMorgan Chase Bank, N.A., which also had outstanding credit services with us. Due to the

amount of market value collateralization, we had no 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 perceived 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 2018. 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 2018. Although we can make no assurances, we expect this to continue to be the case. 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 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 2018, our portion of the System's debt issuances totaled \$116.8 billion for Discount Notes and \$6.3 billion for Bonds. Access to short-term debt markets has been reliable because investors, driven by increased liquidity preferences and risk aversion, including the effects of money market fund reform, have sought the System's short-term debt, which has led to increased utilization of 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.

A primary way that we manage liquidity risk is to meet operational and contingency liquidity requirements. We satisfied the operational liquidity requirement by both meeting a contingency liquidity requirement, discussed below, and because we were able to adequately access the capital markets to issue debt. Liquidity investments, most of which were overnight, were generally in the range of \$5 billion to \$15 billion during the first three months of 2018. In addition, Finance Agency guidance requires us to target at least 5 to 15 consecutive days of a positive amount of liquidity based on specific assumptions under two scenarios. We target holding at least three extra days of positive liquidity under each scenario, although as market conditions warrant we may hold, and often do hold, additional amounts.

Contingency Liquidity Requirement

Contingency liquidity risk is the potential inability to meet liquidity needs because our access to the capital markets to issue Consolidated Obligations is restricted or suspended for a period of time due to a market disruption, operational failure, or real or perceived credit quality problems. We continued to hold an ample amount of liquidity reserves to protect against contingency liquidity risk.

(In millions)	<u>March 31, 2018</u>	<u>December 31, 2017</u>
<u>Contingency Liquidity Requirement</u>		
Total Contingency Liquidity Reserves ⁽¹⁾	\$ 41,003	\$ 40,850
Total Requirement ⁽²⁾	(18,556)	(32,349)
Excess Contingency Liquidity Available	<u>\$ 22,447</u>	<u>\$ 8,501</u>

- (1) Includes, among others, cash, overnight Federal funds, overnight deposits, self-liquidating term Federal funds, 95 percent of the market value of available-for-sale negotiable securities, and 75 percent of the market value of certain held-to-maturity obligations, including obligations of the United States, U.S. government agency obligations and MBS.
- (2) Includes net liabilities maturing in the next seven business days, assets traded not yet settled, Advance commitments outstanding, Advances maturing in the next seven business days, and a three percent hypothetical increase in Advances.

Deposit Reserve Requirement

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)	<u>March 31, 2018</u>	<u>December 31, 2017</u>
<u>Deposit Reserve Requirement</u>		
Total Eligible Deposit Reserves	\$ 83,178	\$ 73,728
Total Member Deposits	(680)	(649)
Excess Deposit Reserves	<u>\$ 82,498</u>	<u>\$ 73,079</u>

Contractual Obligations

The following table summarizes our contractual obligations at March 31, 2018. We believe that, as in the past, we will continue to have sufficient liquidity, including from access to the debt markets to issue Consolidated Obligations, to satisfy these obligations on a timely basis.

(In millions)	<u>< 1 year</u>	<u>1 < 3 years</u>	<u>3 < 5 years</u>	<u>> 5 years</u>	<u>Total</u>
<u>Contractual Obligations</u>					
Long-term debt (Bonds) - par ⁽¹⁾	\$ 26,536	\$ 12,627	\$ 6,638	\$ 5,982	\$ 51,783
Operating leases (include premises and equipment)	1	2	2	3	8
Mandatorily redeemable capital stock	20	—	7	1	28
Commitments to fund mortgage loans	252	—	—	—	252
Pension and other postretirement benefit obligations	2	5	5	32	44
Total Contractual Obligations	<u>\$ 26,811</u>	<u>\$ 12,634</u>	<u>\$ 6,652</u>	<u>\$ 6,018</u>	<u>\$ 52,115</u>

- (1) Does not include Discount Notes and contractual interest payments related to Bonds. Total is based on contractual maturities; the actual timing of payments could be affected by factors affecting redemptions.

Off-Balance Sheet Arrangements

The following table summarizes our off-balance sheet items at March 31, 2018. For more information, see Note 19 of the Notes to Unaudited Financial Statements.

(In millions)	<u>< 1 year</u>	<u>1 < 3 years</u>	<u>3 < 5 years</u>	<u>> 5 years</u>	<u>Total</u>
<u>Off-balance sheet items</u> ⁽¹⁾					
Standby Letters of Credit	\$ 15,284	\$ 115	\$ 183	\$ 24	\$ 15,606
Standby bond purchase agreements	24	48	—	—	72
Total off-balance sheet items	\$ 15,308	\$ 163	\$ 183	\$ 24	\$ 15,678

(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 2018.

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, 2018, 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, 2018, 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, 2018, 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, 2018 that materially affected, or are reasonably likely to materially affect, the FHLB's internal control over financial reporting.

PART II - OTHER INFORMATION

Item 1A. Risk Factors.

For a discussion of our risk factors, see Part I, Item 1A. "Risk Factors" in our 2017 Annual Report on Form 10-K. There have been no material changes from the risk factors in our 2017 Annual Report on Form 10-K.

Item 5. Other Information.

PricewaterhouseCoopers LLP (PwC) serves as the independent registered public accounting firm for the FHLB. Rule 201(c)(1)(ii)(A) of SEC Regulation S-X (the Loan Rule) prohibits an accounting firm, such as PwC, from having certain financial relationships with its audit clients and affiliated entities. Specifically, the Loan Rule provides, in relevant part, that an accounting firm generally would not be independent if it or a covered person in the firm receives a loan from a lender that is a "record or beneficial owner of more than ten percent of the audit client's equity securities." A covered person in the firm includes personnel on the audit engagement team, personnel in the chain of command, partners and managers who provide ten or more hours of non-audit services to the audit client, and partners in the office where the lead engagement partner practices in connection with the client.

PwC has advised the FHLB that for the period ended March 31, 2018, PwC and certain covered persons had borrowing relationships with two FHLB Members (referred below as the "lenders") who own more than ten percent of the FHLB's capital stock, which under the Loan Rule, may reasonably be thought to bear on PwC's independence with respect to the FHLB. The FHLB is providing this disclosure to explain the facts and circumstances, as well as PwC's and the Audit Committee's conclusions, concerning PwC's objectivity and impartiality with respect to the audit of the FHLB.

PwC advised the Audit Committee of the Board that it believes that, in light of the facts of these borrowing relationships, its ability to exercise objective and impartial judgment on all matters encompassed within PwC's audit engagement has not been impaired and that a reasonable investor with knowledge of all relevant facts and circumstances would reach the same conclusion. PwC has advised the Audit Committee that this conclusion is based in part on the following considerations:

- the firm's borrowings are in good standing and neither lender has the right to take action against PwC, as borrower, in connection with the financings;
- the debt balances outstanding are immaterial to PwC and to each lender;
- PwC has borrowing relationships with a diverse group of lenders, therefore PwC is not dependent on any single lender or group of lenders; and
- the PwC audit engagement team has no involvement in PwC's treasury function and PwC's treasury function has no oversight or ability to influence the PwC audit engagement team.

Additionally, the Audit Committee assessed PwC's ability to perform an objective and impartial audit, including consideration of the ownership structure of the FHLB, the limited voting rights of Members and the composition of the Board of Directors. In addition to the above listed considerations, the Audit Committee considered the following:

- although the lenders owned more than ten percent of the FHLB's capital stock, the lenders' voting rights are each less than ten percent;
- no individual officer or director that serves on the Board of Directors has the ability to significantly influence the FHLB based on the composition of the Board of Directors; and
- as of March 31, 2018, and as of the date of the filing of this Form 10-Q, no officer or director of either lender served on the Board of Directors of the FHLB.

Based on this evaluation, the Audit Committee has concluded that PwC's ability to exercise objective and impartial judgment on all issues encompassed within PwC's audit engagement has not been impaired.

Item 6. Exhibits.

(a) *Exhibits.*

See Index of Exhibits

INDEX OF EXHIBITS

<u>Exhibit Number ⁽¹⁾</u>	<u>Description of exhibit</u>	<u>Document filed or furnished, as indicated below</u>
31.1	<u>Rule 13a-14(a)/15d-14(a) Certification of Principal Executive Officer</u>	Filed Herewith
31.2	<u>Rule 13a-14(a)/15d-14(a) Certification of Principal Financial Officer</u>	Filed Herewith
32	<u>Section 1350 Certifications</u>	Furnished Herewith
101.INS	XBRL Instance Document	Filed Herewith
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

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