UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-K

(Mark One)

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

For the fiscal year ended December 31, 2019

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 number 000-51404

FEDERAL HOME LOAN BANK OF INDIANAPOLIS

(Exact name of registrant as specified in its charter)

Federally Chartered Corporation	**35-6001443**
(State or other jurisdiction of incorporation)	(IRS employer identification number)
8250 Woodfield Crossing Blvd. Indianapolis, IN	**46240**
(Address of principal executive offices)	(Zip code)

Registrant's telephone number, including area code: (317) 465-0200

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
None	None	None

Securities registered pursuant to Section 12(g) of the Act:
Class B capital stock, par value $100 per share
(Title of class)

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. ☐ Yes ☒ No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. ☐ Yes ☒ No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. ☒ Yes ☐ No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§ 232.405) 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, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

☐ Large accelerated filer	☐ Accelerated filer	☐ Emerging growth company
☒ Non-accelerated filer	☐ Smaller reporting 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 Act). ☐ Yes ☒ No

Registrant's Class B stock is not publicly traded and is only issued to members of the registrant. Such stock is issued and redeemed at par value, $100 per share, subject to certain regulatory and statutory limits. At June 30, 2019, the aggregate par value of the Class B stock held by members and former members of the registrant was approximately $2.2 billion. At February 29, 2020, 23,240,489 shares of Class B stock were outstanding.

DOCUMENTS INCORPORATED BY REFERENCE: None.

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DEFINED TERMS

ABS: Asset-Backed Securities
Advance: Secured loan to members, former members or Housing Associates
AFS: Available-for-Sale
Agency: GSE and Ginnie Mae
AHP: Affordable Housing Program
AMA: Acquired Member Assets
AOCI: Accumulated Other Comprehensive Income (Loss)
Bank Act: Federal Home Loan Bank Act of 1932, as amended
bps: basis points
CDFI: Community Development Financial Institution
CE: Credit Enhancement
CFI: Community Financial Institution, an FDIC-insured depository institution with average total assets below an annually-adjusted limit established by the Finance Agency Director based on the Consumer Price Index
CFPB: Bureau of Consumer Financial Protection
CFTC: United States Commodity Futures Trading Commission
Clearinghouse: A United States Commodity Futures Trading Commission-registered derivatives clearing organization
CME: CME Clearing
CMO: Collateralized Mortgage Obligation
CO bond: Consolidated Obligation bond
DB Plan: Pentegra Defined Benefit Pension Plan for Financial Institutions, as amended
DC Plan: Pentegra Defined Contribution Retirement Savings Plan for Financial Institutions, as amended
DDCP: Directors' Deferred Compensation Plan
Dodd-Frank Act: Dodd-Frank Wall Street Reform and Consumer Protection Act, as amended
Exchange Act: Securities Exchange Act of 1934, as amended
Fannie Mae: Federal National Mortgage Association
FASB: Financial Accounting Standards Board
FDIC: Federal Deposit Insurance Corporation
FHA: Federal Housing Administration
FHLBank: A Federal Home Loan Bank
FHLBanks: The 11 Federal Home Loan Banks or a subset thereof
FHLBank System: The 11 Federal Home Loan Banks and the Office of Finance
FICO®: Fair Isaac Corporation, the creators of the FICO credit score
Final Membership Rule: Final Rule on FHLBank Membership issued by the Federal Housing Finance Agency effective February 19, 2016
Finance Agency: Federal Housing Finance Agency, successor to Finance Board
Finance Board: Federal Housing Finance Board, predecessor to Finance Agency
FLA: First Loss Account
FOMC: Federal Open Market Committee
Form 8-K: Current Report on Form 8-K as filed with the SEC under the Exchange Act
Form 10-K: Annual Report on Form 10-K as filed with the SEC under the Exchange Act
Form 10-Q: Quarterly Report on Form 10-Q as filed with the SEC under the Exchange Act
FRB: Federal Reserve Board
Freddie Mac: Federal Home Loan Mortgage Corporation
GAAP: Generally Accepted Accounting Principles in the United States of America
Ginnie Mae: Government National Mortgage Association
GLB Act: Gramm-Leach-Bliley Act of 1999, as amended
GSE: United States Government-Sponsored Enterprise
HERA: Housing and Economic Recovery Act of 2008, as amended
Housing Associate: Approved lender under Title II of the National Housing Act of 1934 that is either a government agency or is chartered under federal or state law with rights and powers similar to those of a corporation
HTM: Held-to-Maturity
HUD: United States Department of Housing and Urban Development
JCE Agreement: Joint Capital Enhancement Agreement, as amended, among the 11 FHLBanks
KESP: Key Employee Severance Policy
LCH: LCH.Clearnet LLC
LIBOR: London Interbank Offered Rate
LRA: Lender Risk Account

LTV: Loan-to-Value
MAP-21: Moving Ahead for Progress in the 21st Century Act, enacted on July 6, 2012
MBS: Mortgage-Backed Securities
MCC: Master Commitment Contract
MDC: Mandatory Delivery Commitment
Moody's: Moody's Investor Services
MPF: Mortgage Partnership Finance®
MPP: Mortgage Purchase Program, including Original and Advantage unless indicated otherwise
MRCS: Mandatorily Redeemable Capital Stock
MVE: Market Value of Equity
NRSRO: Nationally Recognized Statistical Rating Organization
OCC: Office of the Comptroller of the Currency
OCI: Other Comprehensive Income (Loss)
OIS: Overnight-Indexed Swap
ORERC: Other Real Estate-Related Collateral
OTTI: Other-Than-Temporary Impairment or -Temporarily Impaired (as the context indicates)
PFI: Participating Financial Institution
PMI: Primary Mortgage Insurance
REMIC: Real Estate Mortgage Investment Conduit
REO: Real Estate Owned
RMBS: Residential Mortgage-Backed Securities
S&P: Standard & Poor's Rating Service
Safety and Soundness Act: Federal Housing Enterprises Financial Safety and Soundness Act of 1992, as amended
SEC: Securities and Exchange Commission
Securities Act: Securities Act of 1933, as amended
SERP: Federal Home Loan Bank of Indianapolis 2005 Supplemental Executive Retirement Plan and/or a similar frozen plan
SETP: Federal Home Loan Bank of Indianapolis 2016 Supplemental Executive Thrift Plan, as amended
SMI: Supplemental Mortgage Insurance
SOFR: Secured Overnight Financing Rate
TBA: To Be Announced, a forward contract for the purchase or sale of MBS at a future agreed-upon date for an established price
TDR: Troubled Debt Restructuring
TVA: Tennessee Valley Authority
UPB: Unpaid Principal Balance
VaR: Value at Risk
WAIR: Weighted-Average Interest Rate

Special Note Regarding Forward-Looking Statements

Statements in this Form 10-K, including statements describing our objectives, projections, estimates or predictions, may be considered to be "forward-looking statements." These statements may use forward-looking terminology, such as "anticipates," "believes," "could," "estimates," "may," "should," "expects," "will," or their negatives or other variations on these terms. We caution that, by their nature, forward-looking statements involve risk or uncertainty and that actual results either could differ materially from those expressed or implied in these forward-looking statements or could affect the extent to which a particular objective, projection, estimate, or prediction is realized. These forward-looking statements involve risks and uncertainties including, but not limited to, the following:

- economic and market conditions, including the timing and volume of market activity, inflation or deflation, changes in the value of global currencies, and changes in the financial condition of market participants;
- volatility of market prices, interest rates, and indices or the availability of suitable interest rate indices, or other factors, resulting from the effects of, and changes in, various monetary or fiscal policies and regulations, including those determined by the FRB and the FDIC, or a decline in liquidity in the financial markets, that could affect the value of investments, or collateral we hold as security for the obligations of our members and counterparties;
- changes in demand for our advances and purchases of mortgage loans resulting from:
    - changes in our members' deposit flows and credit demands;
    - changes in products or services we are able to provide;
    - federal or state regulatory developments impacting suitability or eligibility of membership classes;
    - membership changes, including, but not limited to, mergers, acquisitions and consolidations of charters;
    - changes in the general level of housing activity in the United States and particularly our district states of Michigan and Indiana, the level of refinancing activity and consumer product preferences; and
    - competitive forces, including, without limitation, other sources of funding available to our members;
- changes in mortgage asset prepayment patterns, delinquency rates and housing values or improper or inadequate mortgage originations and mortgage servicing;
- ability to introduce and successfully manage new products and services, including new types of collateral securing advances;
- political events, including federal government shutdowns, administrative, legislative, regulatory, or other developments, national or international health crises (such as the coronavirus) and the responses of governments and financial markets to such crises, changes in international political structures and alliances, and judicial rulings that affect us, our status as a secured creditor, our members (or certain classes of members), prospective members, counterparties, GSE's generally, one or more of the FHLBanks and/or investors in the consolidated obligations of the FHLBanks;
- ability to access the capital markets and raise capital market funding on acceptable terms;
- changes in our credit ratings or the credit ratings of the other FHLBanks and the FHLBank System;
- changes in the level of government guarantees provided to other United States and international financial institutions;
- dealer commitment to supporting the issuance of our consolidated obligations;
- ability of one or more of the FHLBanks to repay its portion of the consolidated obligations, or otherwise meet its financial obligations;
- ability to attract and retain skilled personnel;
- ability to develop, implement and support technology and information systems sufficient to manage our business effectively;
- nonperformance of counterparties to uncleared and cleared derivative transactions;
- changes in terms of derivative agreements and similar agreements;
- loss arising from natural disasters, acts of war or acts of terrorism;
- changes in or differing interpretations of accounting guidance; and
- other risk factors identified in our filings with the SEC.

Although we undertake no obligation to revise or update any forward-looking statements, whether as a result of new information, future events or otherwise, additional disclosures may be made through reports filed with the SEC in the future, including our Forms 10-K, 10-Q and 8-K. This Form 10-K, including Business, Risk Factors and Management's Discussion and Analysis of Financial Condition and Results of Operations, should be read in conjunction with our financial statements and notes, which are included in Item 8.

ITEM 1. BUSINESS

As used in this Form 10-K, unless the context otherwise requires, the terms "we," "us," "our," and "Bank" refer to the Federal Home Loan Bank of Indianapolis or its management. We use acronyms and terms throughout this Item that are defined herein or in the *Defined Terms*.

Unless otherwise stated, amounts disclosed in this Item are rounded to the nearest million; therefore, dollar amounts of less than one million may not be reflected or, due to rounding, may not appear to agree to the amounts presented in thousands in the *Financial Statements* and related *Notes to Financial Statements*. Amounts used to calculate dollar and percentage changes are based on numbers in the thousands. Accordingly, calculations based upon the disclosed amounts (millions) may not produce the same results.

Background Information

The Federal Home Loan Bank of Indianapolis is a regional wholesale bank that serves its member financial institutions in Michigan and Indiana. We are one of 11 regional FHLBanks across the United States, which, along with the Office of Finance, compose the FHLBank System established in 1932. Each FHLBank is a federal instrumentality of the United States of America that is privately capitalized and funded, receives no Congressional appropriations and operates as an independent entity with its own board of directors, management, and employees.

Our mission is to provide reliable and readily available liquidity to our member institutions in support of housing finance and community investment. Our advance and mortgage purchase programs provide funding to assist members with asset/liability management, interest-rate risk management, mortgage pipelines, and other liquidity needs. In addition to funding, we provide various correspondent services, such as securities safekeeping and wire transfers. We also help to meet the economic and housing needs of communities and families through grants and low-cost advances that help support affordable housing and economic development initiatives.

We are wholly owned by our member institutions. All federally-insured depository institutions (including commercial banks, savings associations and credit unions), CDFIs certified by the CDFI Fund of the United States Treasury, certain non-federally insured credit unions and non-captive insurance companies are eligible to become members of our Bank if they have a principal place of business, or are domiciled, in our district states of Michigan or Indiana. Applicants for membership must meet certain requirements that demonstrate that they are engaged in residential housing finance.

All member institutions are required to purchase a minimum amount of our Class B capital stock as a condition of membership. Only members may own our capital stock, except for stock held by former members or their legal successors during their stock redemption period. Our capital stock is not publicly-traded; it is purchased by members from us and redeemed or repurchased by us at the stated par value. With written approval from us, a member may transfer any of its excess capital stock in our Bank to another member at par value.

As a financial cooperative, our members are also our primary customers. We are generally limited to making advances to and purchasing mortgage loans from members. We do not lend directly to, or purchase mortgage loans directly from, the general public.

The principal source of our funding is the proceeds from the sale to the public of FHLBank debt instruments, known as consolidated obligations, which consist of CO bonds and discount notes. The Office of Finance was established as a joint office of the FHLBanks to facilitate the issuance and servicing of consolidated obligations. The United States government does not guarantee, directly or indirectly, our consolidated obligations, which are the joint and several obligations of all FHLBanks.

Each FHLBank was organized under the authority of the Bank Act as a GSE, i.e., an entity that combines elements of private capital, public sponsorship, and public policy. The public sponsorship and public policy attributes of the FHLBanks include:

- an exemption from federal, state, and local taxation, except employment and real estate taxes;
- an exemption from registration under the Securities Act (although the FHLBanks are required by federal law to register a class of their equity securities under the Exchange Act);
- the requirement that at least 40% of our directors be non-member "independent" directors; that two of these "independent" directors have more than four years of experience representing consumer or community interests in banking services, credit needs, housing, or consumer financial protections; and that the remaining "independent" directors have demonstrated knowledge or experience in auditing or accounting, derivatives, financial management, organizational management, project development or risk management practices, or other expertise established by Finance Agency regulations;
- the United States Treasury's authority to purchase up to $4.0 billion of FHLBank consolidated obligations; and
- the required allocation of 10% of annual net earnings before interest expense on MRCS to fund the AHP.

As an FHLBank, we seek to maintain a balance between our public policy mission and our goal of providing adequate returns on our members' capital.

The Finance Agency is the federal regulator of the FHLBanks, Fannie Mae and Freddie Mac. The Finance Agency's stated mission is to ensure that the housing GSEs operate in a safe and sound manner so that they serve as a reliable source of liquidity and funding for housing finance and community investment. The Finance Agency's operating expenses with respect to the FHLBanks are funded by assessments on the FHLBanks. No tax dollars are used to support the operations of the Finance Agency relating to the FHLBanks.

Operating Segments

We manage our operations by grouping products and services within two operating segments. The segments identify the principal ways we provide services to our members. These segments reflect our 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.

These operating segments are (i) traditional, which consists of credit products, investments, and correspondent services and deposits; and (ii) mortgage loans, which consist substantially of mortgage loans purchased from our members through our MPP. The revenues, profit or loss, and total assets for each segment are disclosed in *Notes to Financial Statements - Note 16 - Segment Information*.

Traditional.

Credit Products. We offer our members a wide variety of credit products, including advances, letters of credit, and lines of credit. We approve member credit requests based on our assessment of the member's creditworthiness and financial condition, as well as its collateral position. All credit products must be fully collateralized by a member's pledge of eligible assets.

Our primary credit product is advances. Members use advances for a wide variety of purposes including, but not limited to:

- funding for single-family mortgages and multi-family mortgages held in portfolio, including both conforming and non-conforming mortgages (as determined in accordance with secondary market criteria);
- temporary funding during the origination, packaging, and sale of mortgages into the secondary market;
- funding for commercial real-estate loans and, especially with respect to CFIs, funding for small business, small farm, and small agri-business portfolio loans;
- acquiring or holding MBS;
- short-term liquidity;
- asset/liability and interest-rate risk management;
- a cost-effective alternative to holding short-term investments to meet contingent liquidity needs;
- a competitively-priced alternative source of funds, especially with respect to smaller members with less-diverse funding sources; and
- low-cost funding to help support affordable housing and economic development initiatives.

We offer standby letters of credit, typically for up to 10 years in term, which are rated Aaa by Moody's and AA+ by S&P. Letters of credit are performance contracts that guarantee the performance of a member to a third party and are subject to the same collateralization and borrowing limits that are applicable to advances. Letters of credit may be offered to assist members in facilitating residential housing finance, community lending, asset/liability management, or liquidity. We also offer a standby letter of credit product to collateralize public deposits.

We also offer lines of credit which allow members to fund short-term cash needs without submitting a new application for each funding request.

Advances. We offer a wide array of fixed-rate and adjustable-rate advances, on which interest is generally due monthly. The maturities of advances currently offered typically range from 1 day to 10 years, although the maximum maturity may be longer in some instances. Our primary advance products include:

- **Fixed-rate Bullet Advances**, which have fixed rates throughout the term of the advances. These advances are typically referred to as "bullet" advances because no principal payment is due until maturity. Prepayments prior to maturity may be subject to prepayment fees. These advances can include a feature that allows for delayed settlement;
- **Putable Advances**, which are fixed-rate advances that give us an option to terminate the advance prior to maturity. We would normally exercise the option to terminate the advance when interest rates increase. Upon our exercise of the option, the member must repay the putable advance, but replacement funding will be available to the member at current market rates;
- **Fixed-rate Amortizing Advances**, which are fixed-rate advances that require principal payments either monthly, annually, or based on a specified amortization schedule and may have a balloon payment of remaining principal at maturity;
- **Adjustable-rate Advances**, which are sometimes called "floaters," reprice periodically based on a variety of indices, including LIBOR and the FHLBanks cost of funds index. In 2019, we began offering a SOFR-indexed adjustable-rate advance. LIBOR floaters are the most common type of adjustable-rate advance we extend and have outstanding to our members, but after March 31, 2020 we will no longer offer new LIBOR-indexed adjustable-rate advances with maturities after December 31, 2021. Prepayment terms are agreed to before the advance is extended. Most frequently, no prepayment fees are required if a member prepays an adjustable-rate advance on a reset date, after a pre-determined lock-out period, with the required notification. No principal payment is due prior to maturity;
- **Variable-rate Advances**, which reprice daily. These advances may be extended on terms from one day to six months and may be prepaid on any given business day during that term without fee or penalty. No principal payment is due until maturity; and
- **Callable Advances**, which are fixed-rate advances that give the member an option to prepay the advance before maturity on call dates with no prepayment fee, which members normally would exercise when interest rates decrease.

We also offer customized advances to meet the particular needs of our members. Our entire menu of advance products is generally available to each creditworthy member, regardless of the member's asset size. Finance Agency regulations require us to price our credit products consistently and without discrimination to any member applying for advances. We are also prohibited from pricing our advances below our marginal cost of matching term and maturity funds in the marketplace, including embedded options, and the administrative cost associated with extending such advances to members. Therefore, advances are typically priced at standard spreads above our cost of funds. Our board-approved credit policy allows us to offer lower rates on certain types of advances transactions. Determinations of such rates are based on factors such as volume, maturity, product type, funding availability and costs, and competitive factors in regard to other sources of funds.

Advances Concentration. Credit risk can be magnified if a lender's portfolio is concentrated in a few borrowers. The following tables present the par value of advances outstanding to our largest borrowers ($ amounts in millions).

December 31, 2019	Advances Outstanding	% of Total
Flagstar Bank, FSB	$ 4,345	13 %
The Lincoln National Life Insurance Company	3,580	11 %
Jackson National Life Insurance Company	2,281	7 %
Old National Bank	1,801	6 %
IAS Services LLC	1,650	5 %
Subtotal - largest borrowers	13,657	42 %
Next five largest borrowers	5,967	18 %
Others	12,648	40 %
Total advances, par value	$ 32,272	100 %

December 31, 2018	Advances Outstanding	% of Total
The Lincoln National Life Insurance Company	$ 3,930	12 %
Flagstar Bank, FSB	3,143	10 %
Chemical Bank	2,445	7 %
Jackson National Life Insurance Company	2,016	6 %
American United Life Insurance Company	1,675	5 %
Subtotal - largest borrowers	13,209	40 %
Next five largest borrowers	6,854	21 %
Others	12,766	39 %
Total advances, par value	$ 32,829	100 %

Because of this concentration in advances, we perform frequent credit and collateral reviews on our largest borrowers. In addition, we regularly analyze the implications to our financial management and profitability if we were to lose the business of one or more of these borrowers.

At our discretion, and provided the borrower meets our contractual requirements, advances to borrowers that are no longer members may remain outstanding until maturity, subject to certain regulatory requirements.

For the years ended December 31, 2019, 2018, and 2017, we did not have gross interest income on advances, excluding the effects of interest-rate swaps, from any one borrower that exceeded 10% of our total interest income.

Collateral. All credit products extended to a member must be fully collateralized by the member's pledge of eligible assets. Each borrowing member and its affiliates that hold pledged collateral are required to grant us a security interest in such collateral. All such security interests held by us are afforded a priority by the Competitive Equality Banking Act of 1987 over the claims of any party, including any receiver, conservator, trustee, or similar party having rights as a lien creditor, except for claims held by bona fide purchasers for value or by parties that are secured by prior perfected security interests, provided that such claims would otherwise be entitled to priority under applicable law. Moreover, with respect to federally-insured depository institution members, our claims are given certain preferences pursuant to the receivership provisions of the Federal Deposit Insurance Act.

With respect to insurance company members, however, Congress provided in the McCarran-Ferguson Act of 1945 that state law generally governs the regulation of insurance and shall not be preempted by federal law unless the federal law expressly regulates the business of insurance. Thus, if a court were to determine that the priority status afforded the FHLBanks under Section 10(e) of the Bank Act conflicts with state insurance law applicable to our insurance company members, the court might then determine that the priority of our security interest would be governed by state law, not Section 10(e). Under these circumstances, the "super lien" priority protection afforded to our security interest under Section 10(e) may not fully apply when we lend to insurance company members. However, our security interests in collateral posted by insurance company members have express statutory protections in the jurisdictions where our members are domiciled. In addition, we monitor applicable states' laws, and take all necessary action to obtain and maintain a prior perfected security interest in the collateral, including by taking possession or control of the collateral when appropriate.

Collateral Status Categories. We take collateral under a blanket, specific listings or possession status depending on the credit quality of the borrower, the type of institution, and our lien position on assets owned by the member (i.e., blanket, specific, or partially subordinated). The blanket status is the least restrictive and allows the member to retain possession of the pledged collateral, provided that the member executes a written security agreement and agrees to hold the collateral for our benefit. Under the specific listings status, the member maintains possession of the specific collateral pledged, but the member generally provides listings of loans pledged with detailed loan information such as loan amount, payments, maturity date, interest rate, LTV, collateral type, FICO® scores, etc. Members under possession status are required to place the collateral in possession with our Bank or a third-party custodian in amounts sufficient to secure all outstanding obligations.

Eligible Collateral. Eligible collateral types include certain investment securities, one-to-four family first mortgage loans, multi-family first mortgage loans, deposits in our Bank, certain ORERC assets (such as commercial MBS, municipal securities, commercial real estate loans and home equity loans), and small business loans or farm real estate loans from CFIs. While we only extend credit based on the borrowing capacity for such approved collateral, our contractual arrangements typically allow us to take other assets as collateral to provide additional protection. In addition, under the Bank Act, we have a lien on the borrower's stock in our Bank as security for all of the borrower's indebtedness.

We have an Anti-Predatory Lending Policy and a Subprime and Nontraditional Residential Mortgage Policy that establish guidelines for any subprime or nontraditional loans included in the collateral pledged to us. Loans that are delinquent or violate those policies do not qualify as acceptable collateral and are required to be removed from any collateral value calculation. Consistent with the CFPB home mortgage lending rules, we accept loans that comply with or are exempt from the ability-to-pay requirements as collateral.

In order to help mitigate the market, credit, liquidity, operational and business risk associated with collateral, we apply an over-collateralization requirement to the book value or market value of pledged collateral to establish its lending value. Collateral that we have determined to contain a low level of risk, such as United States government obligations, is over-collateralized at a lower rate than collateral that carries a higher level of risk, such as small business loans. Standard requirements range from 100% for deposits (cash) to 140% - 155% for residential mortgages pledged through blanket status. Over-collateralization requirements for eligible securities range from 103% to 190%; less traditional types of collateral have standard over-collateralization ratios up to 360%.

The over-collateralization requirement applied to asset classes may also vary depending on collateral status, because lower requirements are applied as our levels of information and control over the assets increase. Over-collateralization requirements are applied using market values for collateral in listing and possession status and book value for collateral pledged through blanket status. In no event, however, would market values assigned to whole loan collateral exceed par value. For more information, see *Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations - Risk Management - Credit Risk Management - Advances and Other Credit Products*.

Collateral Review and Monitoring. We verify collateral balances by performing periodic, on-site collateral audits on our borrowers, which allows us to verify loan pledge eligibility, credit strength and documentation quality, as well as adherence to our Anti-Predatory Lending Policy, our Subprime and Nontraditional Residential Mortgage Policy, and other collateral policies. In addition, on-site collateral audit findings are used to adjust over-collateralization amounts to mitigate credit risk and collateral liquidity concerns.

Investments. We maintain a portfolio of investments, purchased from approved counterparties, members and their affiliates, or other FHLBanks, to provide liquidity, utilize balance sheet capacity and supplement our earnings. Higher earnings bolster our ability to support affordable housing and community investment. Our investment portfolio may only include investments deemed investment quality at the time of purchase.

Our short-term investments are placed with large, high-quality financial institutions with investment-grade long-term credit ratings, and ensure the availability of funds to meet our members' credit needs. Such investments typically include securities purchased under agreements to resell, which are secured by United States Treasuries or Agency MBS passthroughs, unsecured federal funds sold and interest-bearing demand deposit accounts. Each may be purchased with either overnight or term maturities, or in the case of demand deposit accounts, redeemed at any time during business hours. In the aggregate, the FHLBanks may represent a significant percentage of the federal funds sold market at any one time, although each FHLBank manages its investment portfolio separately.

Our liquidity portfolio also includes investments in U.S. Treasury securities.

The longer-term investments typically generate higher returns and consist of (i) securities issued by the United States government, its agencies, and certain GSEs, and (ii) Agency MBS.

All unsecured investments are subject to certain selection criteria. Each unsecured counterparty must be approved and has an exposure limit, which is computed in the same manner regardless of the counterparty's status as a member, affiliate of a member or unrelated party. These criteria determine the permissible amount and maximum term of the investment. For more information, see *Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations - Risk Management - Credit Risk Management - Investments*.

Under Finance Agency regulations, except for certain investments authorized under state trust law for our retirement plans, we are prohibited from investing in the following types of securities:

- instruments, such as common stock, that represent an equity ownership in an entity, other than stock in small business investment companies, or certain investments targeted to low-income persons or communities;
- instruments issued by non-United States entities, other than those issued by United States branches and agency offices of foreign commercial banks;
- non-investment grade debt instruments, other than certain investments targeted to low-income persons or communities and instruments that were downgraded after their purchase;
- whole mortgages or other whole loans, except for:
  - those acquired under the MPP or the MPF Program;
  - certain investments targeted to low-income persons or communities; and
  - certain foreign housing loans authorized under Section 12(b) of the Bank Act; and
- non-United States dollar denominated securities.

In addition, we are prohibited by a Finance Agency regulation and Advisory Bulletin, as well as internal policy, from purchasing certain types of investments, such as interest-only or principal-only stripped MBS, CMOs, REMICs or ABS; residual-interest or interest-accrual classes of CMOs, REMICs, ABS and MBS; and CMOs or REMICs with underlying collateral containing pay option/negative amortization mortgage loans, unless those loans or securities are guaranteed by the United States government, Fannie Mae, Freddie Mac or Ginnie Mae.

Finance Agency regulation further provides that the total book value of our investments in MBS and ABS must not exceed 300% of our total regulatory capital, consisting of Class B stock, retained earnings, and MRCS, as of the day we purchase the investments, based on the capital amount most recently reported to the Finance Agency. If the outstanding balances of our investments in MBS and ABS exceed the limitation at any time, but were in compliance at the time we purchased the investments, we would not be considered out of compliance with the regulation, but we would not be permitted to purchase additional investments in MBS or ABS until these outstanding balances were within the capital limitation. Generally, our goal is to maintain these investments near the 300% limit.

Deposit Products. Deposit products provide a small portion of our funding resources, while also giving members a high-quality asset that satisfies their regulatory liquidity requirements. We offer several types of deposit products to our members and other institutions including overnight and demand deposits. We may accept uninsured deposits from:

- our members;
- institutions eligible to become members;
- any institution for which we are providing correspondent services;
- interest-rate swap counterparties;
- other FHLBanks; or
- other federal government instrumentalities.

Mortgage Loans. Mortgage loans consist of residential mortgage loans purchased from our members through our MPP and participating interests purchased in 2012-2014 from the FHLBank of Topeka in residential mortgage loans that were originated by certain of its members under the MPF Program. These programs help fulfill the FHLBank System's housing mission and provide an additional source of liquidity to FHLBank members that choose to sell mortgage loans into the secondary market rather than holding them in their own portfolios. These programs are considered AMA, a core mission activity of the FHLBanks, as defined by Finance Agency regulations.

Mortgage Purchase Program.

Overview. We purchase mortgage loans directly from our members through our MPP. Members that participate in the MPP are known as PFIs. By regulation, we are not permitted to purchase loans directly from any institution that is not a member or Housing Associate of the FHLBank System, and we may not use a trust or other entity to purchase the loans. We purchase conforming, medium- or long-term, fixed-rate, fully amortizing, level payment loans predominantly for primary, owner-occupied, detached residences, including single-family properties, and two-, three-, and four-unit properties. Additionally, to a lesser degree, we purchase loans for primary, owner-occupied, attached residences (including condominiums and planned unit developments), and second/vacation homes.

Our mortgage loan purchases are governed by the Finance Agency's AMA regulation. Further, while the regulation does not expressly limit us to purchasing fixed-rate loans, before purchasing adjustable-rate loans we would need to analyze whether such purchases would require Finance Agency approval under its New Business Activity regulation. Such regulation provides that any material change to an FHLBank's business activity that results in new risks or operations needs to be pre-approved by the Finance Agency.

Under Finance Agency regulations, all pools of mortgage loans currently purchased by us, other than government-insured mortgage loans, must have sufficient credit enhancement to be rated by us as at least investment grade, and we operate our credit enhancement model and methodology accordingly to estimate the amount of necessary credit enhancement for those pools.

As a result of the credit enhancements, the PFI shares the credit risk with us on conventional mortgage loans. We manage the interest-rate risk, prepayment option risk, and liquidity risk.

Mortgage Standards. All loans we purchase must meet the guidelines for our MPP or be specifically approved as an exception based on compensating factors. Our guidelines generally meet or exceed the underwriting standards of Fannie Mae and Freddie Mac. For example, the maximum LTV ratio for any conventional mortgage loan at the time of purchase is 95%, and borrowers must meet certain minimum credit scores depending upon the type of property or loan. In addition, we will not knowingly purchase any loan that violates the terms of our Anti-Predatory Lending Policy or our Subprime and Nontraditional Residential Mortgage Policy. Furthermore, we require our members to warrant to us that all of the loans sold to us are in compliance with all applicable laws, including prohibitions on anti-predatory lending. All loans purchased through our MPP must qualify as "Safe-Harbor Qualified Mortgages" under CFPB rules.

Under our guidelines, a PFI must:

- be an active originator of conventional mortgages and have servicing capabilities, if applicable, or use a servicer that we approve;
- advise us if it has been the subject of any adverse action by either Fannie Mae or Freddie Mac; and
- along with its parent company, if applicable, meet the capital requirements of each state and federal regulatory agency with jurisdiction over the member's or parent company's activities.

Mortgage Loan Concentration. During 2019, our top-selling PFI sold us mortgage loans totaling $255 million, or 20% of the total mortgage loans purchased by the Bank in 2019. Our five top-selling PFIs sold us 45%. Because of this concentration, we regularly analyze the implications to our financial management and profitability if we were to lose the business of one or more of these sellers.

For the years ended December 31, 2019, 2018, and 2017, no aggregate mortgage loans outstanding previously purchased from any one PFI contributed interest income that exceeded 10% of our total interest income.

The properties underlying the mortgage loans in our MPP portfolio are dispersed across 50 states, the District of Columbia and the Virgin Islands, with concentrations in Michigan and Indiana, the two states in our district.

The median original size of each mortgage loan outstanding was approximately $167 thousand at December 31, 2019.

Credit Enhancement. FHA mortgage loans are backed by insurance provided by the United States government and, therefore, no additional credit enhancements (such as an LRA or SMI) are required.

For conventional mortgage loans, the credit enhancement required to reach the minimum credit rating is determined by using a credit risk model. The model is used to evaluate each MCC or pool of MCCs to ensure the LRA percentage as credit enhancement is sufficient. The model evaluates the characteristics of the loans the PFIs actually delivered for the likelihood of timely payment of principal and interest. The model's results are based on numerous standard borrower and loan attributes, such as the LTV ratio, loan purpose (such as purchase of home, refinance, or cash-out refinance), type of documentation, income and debt expense ratios and credit scores. Based on the credit assessment, we are required to hold risk-based capital to help mitigate the potential credit risk in accordance with the Finance Agency regulations.

Our original MPP, which we ceased offering for conventional loans in 2010, relied on credit enhancement from LRA and SMI to achieve an implied credit rating of at least AA based on an NRSRO model in compliance with Finance Agency regulations. In 2010, we began offering Advantage MPP for new conventional MPP loans, which utilizes an enhanced fixed LRA for additional credit enhancement, resulting in an implied credit rating of at least investment grade, consistent with Finance Agency regulations, instead of utilizing coverage from an SMI provider. The only substantive difference between the two programs is the credit enhancement structure. For both the original MPP and Advantage MPP, the funds in the LRA are established in an amount sufficient to cover expected losses in excess of the borrower's equity and PMI, if any, and used to pay losses on a pool basis.

Credit losses on defaulted mortgage loans in a pool are paid from these sources, until they are exhausted, in the following order:

- borrower's equity;
- PMI, if applicable;
- LRA;
- SMI, if applicable; and
- our Bank.

LRA. We use either a "spread LRA" or a "fixed LRA" for credit enhancement. The spread LRA is used in combination with SMI for credit enhancement of conventional mortgage loans purchased under our original MPP, and the fixed LRA is used for all acquisitions of conventional mortgage loans under Advantage MPP.

- *Original MPP.* The spread LRA is funded through a reduction to the net yield earned on the loans, and the corresponding purchase price paid to the PFI reflects our reduced net yield. The LRA for each pool of loans is funded monthly at an annual rate ranging from 6 to 20 bps, depending on the terms of the MCC, and is used to pay loan loss claims or is held until the LRA accumulates to a required "release point." The release point is 20 to 85 bps of the then outstanding principal balances of the loans in that pool, depending on the terms of the original contract. If the LRA exceeds the required release point, the excess amount is eligible for return to the PFI(s) that sold us the loans in that pool, generally subject to a minimum five-year lock-out period after the pool is closed to acquisitions.

- *Advantage MPP.* The LRA for Advantage MPP differs from our original MPP in that the funding of the fixed LRA occurs at the time we acquire the loan and is based on the principal amount purchased. Depending on the terms of the MCC, the LRA funding amount varies between 110 bps and 120 bps of the principal amount. LRA funds not used to pay loan losses may be returned to the PFI subject to a retention schedule detailed in each MCC based on the original LRA amount. Per the retention schedule, no LRA funds are returned to the PFI for the first five years after the pool is closed to acquisitions. We absorb any losses in excess of available LRA funds.

SMI. For pools of loans acquired under our original MPP, we have credit protection from loss on each loan, where eligible, through SMI, which provides insurance to cover credit losses to approximately 50% of the property's original value, depending on the SMI contract terms, and subject, in certain cases, to an aggregate stop-loss provision in the SMI policy. Some MCCs that equal or exceed $35 million of total initial principal to be sold on a "best-efforts" basis include an aggregate loss/ benefit limit or "stop-loss" that is equal to the total initial principal balance of loans under the MCC multiplied by the stop-loss percentage (ranges from 200 - 400 bps), as is then in effect, and represents the maximum aggregate amount payable by the SMI provider under the SMI policy for that pool. Even with the stop-loss provision, the aggregate of the LRA and the amount payable by the SMI provider under an SMI stop-loss contract will be equal to or greater than the amount of credit enhancement required for the pool to have an implied NRSRO credit rating of at least AA at the time of purchase. Non-credit losses, such as uninsured property damage losses that are not covered by the SMI, can be recovered from the LRA to the extent that there are releasable LRA funds available. We absorb any non-credit losses greater than the available LRA. We do not have SMI coverage on loans purchased under Advantage MPP.

Pool Aggregation. We offer pool aggregation under our MPP. Our pool aggregation program is designed to reduce the credit enhancement costs to small and mid-size PFIs. Under pool aggregation, a PFI's loans are pooled with similar loans originated by other PFIs to create aggregate pools of approximately $100 million original UPB or greater. The combination of small and mid-size PFIs' loans into one pool also assists in the evaluation of the amount of LRA needed for the overall credit enhancement.

Conventional Loan Pricing. We consider the cost of the credit enhancement (LRA and SMI, if applicable) when we formulate conventional loan pricing. Each of these credit enhancement structures is accounted for, not only in our expected return on acquired mortgage loans, but also in the risk review performed during the accumulation/pooling process.

We typically receive a 0.25% fee on cash-out refinancing transactions with LTVs between 75% and 80%. Our current guidelines do not allow cash-out refinance loans above 80% LTV. We also adjust the market price we pay for loans depending upon market conditions. We continue to evaluate the scope and rate of such fees as they evolve in the industry. We do not pay a PFI any fees other than the servicing fee when the PFI retains the servicing rights.

Servicing. We do not service the mortgage loans we purchase. PFIs may elect to retain servicing rights for the loans sold to us, or they may elect to sell servicing rights to an MPP-approved servicer.

Those PFIs that retain servicing rights receive a monthly servicing fee and may be required to undergo a review by a third-party quality control contractor that advises the PFIs of any deficiencies in servicing procedures or processes and then notifies us so that we can monitor the PFIs' performance. The PFIs that retain servicing rights can sell those rights at a later date with our approval. If we deem servicing to be inadequate, we can require that the servicing of those loans be transferred to a servicer that is acceptable to us.

The servicers are responsible for all aspects of servicing, including, among other responsibilities, the administration of any foreclosure and claims processes from the date we purchase the loan until the loan has been fully satisfied. Our MPP was designed to require loan servicers to foreclose and liquidate in the servicer's name rather than in our name. As the servicer progresses through the process from foreclosure to liquidation, we are paid in full for all unpaid principal and accrued interest on the loan through the normal remittance process.

It is the servicer's responsibility to initiate claims for losses on the loans. If a loss is expected, no claims are settled until the claim has been reviewed and approved by the Bank. For loans that are credit-enhanced with SMI, if it is determined that a loss is covered, the SMI provider pays the claim in full and seeks reimbursement from the LRA funds. The SMI provider is entitled to reimbursement for credit losses from funds available in the LRA that are equal to the aggregate amounts contributed to the LRA less any amounts paid for previous claims and any amounts that have been released to the PFI from the LRA or paid to us to cover prior claims. If the LRA has been depleted but is still being funded, based on our contractual arrangement, we and/or the SMI provider are entitled to reimbursement from those funds as they are received, up to the full reimbursable amount of the claim. These claim payments would be reflected as additional deductions from the LRA as they were paid. For more information, see *Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations - Risk Management - Credit Risk Management - Mortgage Loans Held for Portfolio - MPP.*

Housing Goals. The Bank Act requires the Finance Agency to establish low-income housing goals for mortgage purchases. Under its current housing goals regulation, the Finance Agency may establish low-income housing goals for FHLBanks that acquire, in any calendar year, more than $2.5 billion of conventional mortgages through an AMA program. If we exceed this volume threshold and fail to meet any affordable housing goals established by the Finance Agency that were determined by the Director to have been feasible, we may be required to submit a housing plan to the Finance Agency.

Funding Sources

The primary source of funds for each of the FHLBanks is the sale of consolidated obligations, which consist of CO bonds and discount notes. The Finance Agency and the United States Secretary of the Treasury oversee the issuance of this debt in the capital markets. Finance Agency regulations govern the issuance of debt on our behalf and authorize us to issue consolidated obligations through the Office of Finance, under Section 11(a) of the Bank Act. No FHLBank is permitted to issue individual debt without the approval of the Finance Agency.

While the primary liability for consolidated obligations issued to provide funds for a particular FHLBank rests with that FHLBank, consolidated obligations are the joint and several obligations of all of the FHLBanks under Section 11(a). Although each FHLBank is a GSE, consolidated obligations are not obligations of, and are not guaranteed by, the United States government. Consolidated obligations are backed only by the financial resources of all of the FHLBanks and are rated Aaa by Moody's and AA+ by S&P.

Consolidated Obligation Bonds. CO bonds satisfy term funding requirements and are issued with a variety of maturities and terms under various programs. The maturities of these securities may range from 4 months to 30 years, but the maturities are not subject to any statutory or regulatory limit. CO bonds can be fixed or adjustable rate and callable or non-callable. Those issued with adjustable-rate payment terms use a variety of indices for interest rate resets, including LIBOR, Federal Funds, United States Treasury Bill, Constant Maturity Swap, Prime Rate, SOFR, and others. CO bonds are issued and distributed through negotiated or competitively bid transactions with approved underwriters or selling group members.

Consolidated Obligation Discount Notes. We also issue discount notes to provide short-term funds. These securities can have maturities that range from one day to one year, and are offered daily through a discount note selling group and other authorized securities dealers. Discount notes are generally sold below their face values and are redeemed at par when they mature.

Office of Finance. The issuance of consolidated obligations is facilitated and executed by the Office of Finance, which also services all outstanding debt, provides information on capital market developments to the FHLBanks, and manages our relationship with the NRSROs with respect to consolidated obligations. The Office of Finance also prepares and publishes the FHLBanks' combined quarterly and annual financial reports.

As the FHLBanks' fiscal agent for debt issuance, the Office of Finance can control the timing and amount of each issuance. Through its oversight of the United States financial markets, the United States Treasury can also affect debt issuance for the FHLBanks. For more information, see *Item 1. Business - Supervision and Regulation - Government Corporations Control Act.*

Affordable Housing Programs, Community Investment and Small Business Grants

Each FHLBank is required to set aside 10% of its annual net earnings before interest expense on MRCS to fund its AHP, subject to an annual FHLBank System-wide minimum of $100 million. Through our AHP, we may provide cash grants or interest subsidies on advances to our members, which are, in turn, provided to awarded projects or qualified individuals to finance the purchase, construction, or rehabilitation of very low- to moderate-income owner-occupied or rental housing. Our AHP includes the following:

- Competitive Program, which is the primary grant program to finance the purchase, construction or rehabilitation of housing for individuals with incomes at or below 80% of the median income for the area, and to finance the purchase, construction, or rehabilitation of rental housing, with at least 20% of the units occupied by, and affordable for, very low-income households. Each year, 65% of our annual available AHP funds are granted through this program. AHP-related advances, of which none were outstanding at December 31, 2019 or 2018, are also part of this program.

- Set-Aside Programs, which include 35% of our annual available AHP funds, are administered through the following:
  - Homeownership Opportunities Program, which provides assistance with down payments and closing costs to first-time homebuyers;
  - Neighborhood Impact Program, which provides rehabilitation assistance to homeowners to help improve neighborhoods;
  - Accessibility Modifications Program, which provides funding for accessibility modifications and minor home rehabilitation for eligible senior homeowners or owner-occupied households with one or more individuals having a permanent disability; and
  - Disaster Relief Program, which may be activated at our discretion in cases of federal or state disaster declarations for rehabilitation or down payment assistance targeted to low- or moderate-income homeowner disaster victims. The disaster relief program was most recently approved by the board of directors and activated to assist victims of the 2018 flooding disaster/emergency declaration in certain Michigan and Indiana counties.

In addition, we offer a variety of specialized advance programs to support housing and community development needs. Through our Community Investment Program, we offer advances to our members involved in community economic development activities benefiting low- or moderate-income families or neighborhoods. These funds can be used for the development of housing, infrastructure improvements, or assistance to small businesses or businesses that are creating or retaining jobs in the member's community for low- and moderate-income families. These advances typically have maturities ranging from overnight to 20 years and are priced at our cost of funds plus reasonable administrative expenses. At December 31, 2019 and 2018, we had $831 million and $796 million, respectively, of outstanding principal on CIP-related advances.

In 2018, the Bank began offering small business grants under its new Elevate program, which are designed to support the growth and development of small businesses in Michigan and Indiana by providing funding for capital expenditures, workforce training, or other business-related needs. The total amount awarded in 2019 and 2018 was $391,751 and $255,595, respectively.

Use of Derivatives

Derivatives are an integral part of our financial management strategies to manage identified risks inherent in our lending, investing and funding activities and to achieve our risk management objectives. Finance Agency regulations and our Enterprise Risk Management Policy establish guidelines for the use of derivatives. Permissible derivatives include interest-rate swaps, swaptions, interest-rate cap and floor agreements, calls, puts, futures, and forward contracts. We are only permitted to execute derivative transactions to manage interest-rate risk exposure inherent in otherwise unhedged asset or liability positions, hedge embedded options in assets and liabilities including mortgage prepayment risk positions, hedge any foreign currency positions, and act as an intermediary between our members and interest-rate swap counterparties. We are prohibited from trading in or the speculative use of these instruments.

Our use of derivatives is the primary way we align the preferences of investors for the types of debt securities they want to purchase and the preferences of member institutions for the types of advances they want to hold and the types of mortgage loans they want to sell. For more information, see *Notes to Financial Statements - Note 9 - Derivatives and Hedging Activities* and *Item 7A. Quantitative and Qualitative Disclosures About Market Risk - Use of Derivative Hedges.*

Supervision and Regulation

The Bank Act. We are supervised and regulated by the Finance Agency, an independent agency in the executive branch of the United States government, established by HERA.

Under the Bank Act, the Finance Agency's responsibility is to ensure that, pursuant to regulations promulgated by the Finance Agency, each FHLBank:

- carries out its housing finance mission;
- remains adequately capitalized and able to raise funds in the capital markets; and
- operates in a safe and sound manner.

The Finance Agency is headed by a Director, who is appointed to a five-year term by the President of the United States, with the advice and consent of the Senate. The Director appoints a Deputy Director for the Division of Enterprise Regulation, a Deputy Director for the Division of FHLBank Regulation, and a Deputy Director for Housing Mission and Goals, who oversees the housing mission and goals of Fannie Mae and Freddie Mac, as well as the housing finance and community and economic development mission of the FHLBanks. HERA also established the Federal Housing Finance Oversight Board, comprised of the Secretaries of the Treasury and HUD, the Chair of the SEC, and the Finance Agency Director. The Federal Housing Finance Oversight Board functions as an advisory body to the Finance Agency Director. The Finance Agency's operating expenses are funded by assessments on the FHLBanks, Fannie Mae and Freddie Mac. As such, no tax dollars or other appropriations support the operations of the Finance Agency or the FHLBanks. In addition to reviewing our submissions of monthly and quarterly information on our financial condition and results of operations, the Finance Agency conducts annual on-site examinations and performs periodic on- and off-site reviews in order to assess our safety and soundness.

The United States Treasury receives a copy of the Finance Agency's annual report to Congress, monthly reports reflecting the FHLBank System's securities transactions, and other reports reflecting the FHLBank System's operations. Our annual financial statements are audited by an independent registered public accounting firm in accordance with standards issued by the Public Company Accounting Oversight Board, as well as the government auditing standards issued by the United States Comptroller General. The Comptroller General has authority under the Bank Act to audit or examine the Finance Agency and the FHLBank System and to decide the extent to which they fairly and effectively fulfill the purposes of the Bank Act. The Finance Agency's Office of Inspector General also has investigation authority over the Finance Agency and the FHLBank System.

GLB Act Amendments to the Bank Act. The GLB Act amended the Bank Act to require that each FHLBank maintain a capital structure comprised of Class A stock, Class B stock, or both. A member can redeem Class A stock upon six months' prior written notice to its FHLBank. A member can redeem Class B stock upon five years' prior written notice to its FHLBank. Class B stock has a higher weighting than Class A stock for purposes of calculating the minimum leverage requirement applicable to each FHLBank.

The Bank Act requires that each FHLBank maintain permanent capital and total capital in sufficient amounts to comply with specified, minimum risk-based capital and leverage capital requirements. From time to time, for reasons of safety and soundness, the Finance Agency may require one or more individual FHLBanks to maintain more permanent capital or total capital than is required by the regulations. Failure to comply with these requirements or the minimum capital requirements could result in the imposition of operating agreements, cease and desist orders, civil money penalties, and other regulatory action, including involuntary merger, liquidation, or reorganization as authorized by the Bank Act.

HERA Amendments to the Bank Act. In addition to establishing the Finance Agency, HERA eliminated regulatory authority to appoint directors to our board. HERA also eliminated regulatory authority to cap director fees (subject to the Finance Agency's review of reasonableness of such compensation), but placed additional controls over executive compensation.

Government Corporations Control Act. We are subject to the Government Corporations Control Act, which provides that, before we can issue and offer consolidated obligations to the public, the Secretary of the United States Treasury must prescribe the form, denomination, maturity, interest rate, and conditions of the obligations; the way and time issued; and the selling price.

Furthermore, this Act provides that the United States Comptroller General may review any audit of the financial statements of an FHLBank conducted by an independent registered public accounting firm. If the Comptroller General undertakes such a review, the results and any recommendations must be reported to Congress, the Office of Management and Budget, and the FHLBank in question. The Comptroller General may also conduct a separate audit of any of our financial statements.

Federal Securities Laws. Our shares of Class B stock are registered with the SEC under the Exchange Act, and we are generally subject to the information, disclosure, insider trading restrictions, and other requirements under the Exchange Act, with certain exceptions. We are not subject to the registration provisions of the Securities Act. We have been, and continue to be, subject to all relevant liability provisions of the Securities Act and the Exchange Act.

Federal and State Banking Laws. We are generally not subject to the state and federal banking laws affecting United States retail depository financial institutions. However, the Bank Act requires the FHLBanks to submit reports to the Finance Agency concerning transactions involving loans and other financial instruments that involve fraud or possible fraud. In addition, we are required to maintain an anti-money laundering program, under which we are required to report suspicious transactions to the Financial Crimes Enforcement Network pursuant to the Bank Secrecy Act and the USA Patriot Act.

We contract with third-party compliance firms to perform certain services on our behalf to assist us with our compliance with these regulations as they are applicable to us. Finance Agency regulations require that we monitor and assess our third-party firms' performance of the services. As we identify deficiencies in our third-party firms' performance, we seek to remediate the deficiencies. Under certain circumstances, we are required to notify the Finance Agency about the deficiencies and our response to assure our compliance with these regulations.

As a wholesale secured lender and a secondary market purchaser of mortgage loans, we are not, in general, directly subject to the various federal and state laws regarding consumer credit protection, such as anti-predatory lending laws. However, as non-compliance with these laws could affect the value of these loans as collateral or acquired assets, we require our members to warrant that all of the loans pledged or sold to us are in compliance with all applicable laws. Federal law requires that, when a mortgage loan (defined to include any consumer credit transaction secured by the principal dwelling of the consumer) is sold or transferred, the new creditor shall, within 30 days of the sale or transfer, notify the borrower of the following: the identity, address and telephone number of the new creditor; the date of transfer; how to contact an agent or party with the authority to act on behalf of the new creditor; the location of the place where the transfer is recorded; and any other relevant information regarding the new creditor. In accordance with this statute, we provide the appropriate notice to borrowers whose mortgage loans we purchase under our MPP and have established procedures to ensure compliance with this notice requirement. In the case of the participating interests in mortgage loans we purchased from the FHLBank of Topeka under the MPF Program, the FHLBank of Chicago (as the MPF Provider) issued the appropriate notice to the affected borrowers and established its own procedures to ensure compliance with the notice requirement.

Regulatory Enforcement Actions. While examination reports are confidential between the Finance Agency and an FHLBank, the Finance Agency may publicly disclose supervisory actions or agreements that the Finance Agency has entered into with an FHLBank. We are not subject to any such Finance Agency actions, and we are not aware of any current Finance Agency actions with respect to other FHLBanks that could have a material adverse effect on our financial results.

Membership

Our membership territory is comprised of the states of Michigan and Indiana. In 2019, 1 new member was added and 7 members were merged or consolidated, for a net reduction of 6 members.

The following table presents the composition of our members by type of financial institution.

Type of Institution	December 31, 2019	% of Total	December 31, 2018	% of Total
Commercial banks and savings associations	187	50 %	192	51 %
Credit unions	129	35 %	129	34 %
Insurance companies	53	14 %	53	14 %
CDFIs	4	1 %	5	1 %
Total member institutions	373	100 %	379	100 %

There was no material impact on our business as a result of the change in membership composition.

Competition

We operate in a highly competitive environment. Demand for advances is affected by, among other factors, the cost and availability of other sources of liquidity for our members, including customer deposits, brokered deposits, reciprocal deposits and public funds. We compete with other suppliers of wholesale funding, both secured and unsecured. Such other suppliers may include the United States government, the Federal Reserve Banks, corporate credit unions, the Central Liquidity Facility, investment banks, commercial banks, and in certain circumstances other FHLBanks. Large institutions may also have independent access to the national and global credit markets. Also, the availability of alternative funding sources to members, such as growth in deposits from members' banking customers, can significantly influence the demand for advances and can vary as a result of several factors, including legislative or regulatory changes, market conditions, members' creditworthiness, and availability of collateral.

Likewise, our MPP is subject to significant competition. Direct competition for purchases of mortgages comes from other buyers of conventional, conforming, fixed-rate mortgage loans, such as Fannie Mae and Freddie Mac. In addition, PFIs face increased origination competition from originators that are not members of our Bank.

We also compete with Fannie Mae, Freddie Mac, and other GSEs as well as corporate, sovereign, and supranational entities for funds raised through the issuance of CO bonds and discount notes. Increases in the supply of competing debt products may, in the absence of increases in demand, result in higher debt costs to us or lesser amounts of debt issued at the same cost than otherwise would be the case.

Employees

As of December 31, 2019, we had 253 full-time employees and 3 part-time employees. Employees are not represented by a collective bargaining unit.

Available Information

Our Annual and Quarterly Reports on Forms 10-K and 10-Q, together with our Current Reports on Form 8-K, are filed with the SEC through the EDGAR filing system. A link to EDGAR is available through our public website at www.fhlbi.com by selecting "News" and then "Investor Relations."

We have a Code of Conduct that is applicable to all directors, officers, and employees, and the members of our Affordable Housing Advisory Council. The Code of Conduct is available on our website by scrolling to the bottom of any web page on www.fhlbi.com and then selecting "Corporate Governance" in the navigation menu.

Our 2020 Targeted Community Lending Plan describes our plan to address the credit needs and market opportunities in our district states of Michigan and Indiana. It is available on our website at www.fhlbi.com/materials under "Bulletins, Publications and Presentations."

Our Audit Committee operates under a written charter adopted by the board of directors that was most recently amended on March 22, 2019. The Audit Committee charter is available on our website by scrolling to the bottom of any web page on www.fhlbi.com and then selecting "Corporate Governance" in the navigation menu.

We provide our website address and the SEC's website address solely for information. Except where expressly stated, information appearing on our website and the SEC's website is not incorporated into this Annual Report on Form 10-K.

Anyone may also request a copy of any of our public financial reports, our Code of Conduct or our 2020 Targeted Community Lending Plan through our Corporate Secretary at FHLBank of Indianapolis, 8250 Woodfield Crossing Boulevard, Indianapolis, IN 46240, (317) 465-0200.

ITEM 1A. RISK FACTORS

We use acronyms and terms throughout this Item that are defined herein or in the *Defined Terms*.

We have identified the following risk factors that could have a material adverse effect on our Bank. There may be other risks and uncertainties, including those discussed elsewhere in this Form 10-K that are not described in these risk factors.

Economic Conditions and Policy, Global Political or Economic Events, a Major Natural Disaster, or Widespread Health Crises Could Have an Adverse Effect on Our Business, Liquidity, Financial Condition, and Results of Operations

Our business, liquidity, financial condition, and results of operations are sensitive to general domestic and international business and economic conditions, such as changes in the money supply, inflation, volatility in both debt and equity capital markets, and the strength of the local economies in which we conduct business.

Our business and results of operations are significantly affected by the fiscal and monetary policies of the United States government and its agencies, including the FRB through its regulation of the supply of money and credit in the United States. The FRB's policies either directly or indirectly influence the yield on interest-earning assets, volatility of interest rates, prepayment speeds, the cost of interest-bearing liabilities and the demand for advances and for our debt. In addition, the FHLBanks currently play a predominant role as lenders in the federal funds market; therefore, any disruption in the federal funds market or any related regulatory or policy change may adversely affect our cash management activities, results of operations, and reputation.

Additionally, we are affected by the global economy through member ownership and investments, and through capital markets exposures. Global political, economic, and business uncertainty has led to increased volatility in capital markets and has the potential to drive volatility in the future. On January 31, 2020, the United Kingdom formally withdrew from membership in the European Union (the action commonly referred to as "Brexit"). Although we have not yet determined the full effects of Brexit, this event may cause greater global economic and business uncertainty. In addition, a major natural disaster or other catastrophic event, health crisis (such as the coronavirus) or pandemic, as well as international responses to such events, could increase economic uncertainties and lead to further global capital market volatility, lower credit availability, and weaker economic growth. Our members, counterparties and vendors could experience similar negative effects. As a result, our business could be exposed to unfavorable market conditions, lower demand for mission-related assets, increased risk of credit losses, lower earnings, or reduced ability to pay dividends or redeem or repurchase capital stock.

The FOMC continues to maintain its policy of reinvesting principal payments from its securities holdings, and of rolling over maturing United States Treasury securities at auction. During 2019, the Federal Reserve also lowered its target range for the Federal Funds rate. These policies are intended to help maintain accommodative financial conditions. However, the FRB's continuing substantial participation in both short-term and MBS markets could adversely affect us through lower yields on our investments, higher costs of debt, and disruption of member demand for our products.

Our business and results of operations are sensitive to the condition of the housing and mortgage markets, as well as general business and economic conditions. Adverse trends in the mortgage lending sector, including declines in home prices or loan performance, could reduce the value of collateral securing our advances and the fair value of our MBS. Such reductions in value would increase the possibility of under-collateralization, thereby increasing the risk of loss in case of a member's failure. Also, deterioration in the residential mortgage markets could negatively affect the value of our MPP portfolio, resulting in an increase in the allowance for credit losses on mortgage loans and possible additional realized losses if we were forced to liquidate our MPP portfolio.

Our district is comprised of the states of Michigan and Indiana. In the last several years, both states have experienced improving economic conditions. However, increases in unemployment and foreclosure rates or decreases in job or income growth rates in either state could result in less demand for mission-related assets and therefore lower earnings. For more information, see *Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations - Executive Summary - Economic Environment.*

The Inability to Access Capital Markets on Acceptable Terms Could Adversely Affect Our Liquidity, Operations, Financial Condition and Results of Operations, and the Value of Membership in Our Bank

Our 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 depends in part on prevailing conditions in the capital markets, such as investor demand and liquidity, and on dealer commitment to inventory and support our debt. Severe financial and economic disruptions in the past, and the United States government's measures to mitigate their effects, including increased capital requirements on dealers' inventory and other regulatory changes affecting dealers, have changed the traditional bases on which market participants value GSE debt securities and consequently could affect our funding costs and practices, which could make it more difficult and more expensive to issue our debt. Any further disruption in the debt market could have an adverse impact on our interest spreads, opportunities to call and reissue existing debt or roll over maturing debt, or our ability to meet the Finance Agency's mandates on FHLBank liquidity.

A Cybersecurity Event; Interruption in Our Information Systems; Unavailability of, or an Interruption of Service at, Our Main Office or Our Backup Facilities; or Failure of or an Interruption in Information Systems of Third-Party Vendors or Service Providers Could Adversely Affect Our Business, Risk Management, Financial Condition, Results of Operations, and Reputation

Cybersecurity.

We rely heavily on our information systems and other technology to conduct and manage our business, which inherently involves large financial transactions with our members and other counterparties. Our operations rely on the secure processing, storage and transmission of confidential and other information in our computer systems and networks. These computer systems, software and networks may be vulnerable to breaches, unauthorized access, damage, misuse, computer viruses or other malicious code and other events that could potentially jeopardize the confidentiality of such information or otherwise cause interruptions or malfunctions in our operations. As malicious threat tactics continue to become more pervasive and more sophisticated, we are required to implement more advanced mitigating controls, which increases our mitigation costs. Moreover, if we experience a significant cybersecurity event, we may suffer significant financial or data loss, we may be unable to conduct and manage our business functions effectively, we may incur significant expenses in remediating such incidents, and we may suffer reputational harm. Any such occurrence could result in increased regulatory scrutiny of our operations. Although we carry cybersecurity insurance, its coverage may not be broad enough or adequate to cover losses we may incur if a significant cybersecurity event occurs.

Information Systems; Facilities; Unavailability or Interruption of Service.

In addition, our operations rely on the availability and functioning of our main office, our business resumption center and other facilities. If we experience a significant failure or interruption in our business continuity, disaster recovery or certain information systems, we may be unable to conduct and manage our business functions effectively, we may incur significant expenses in remediating such incidents, and we may suffer reputational harm. Moreover, any of these occurrences could result in increased regulatory scrutiny of our operations.

Office of Finance.

The Office of Finance is a joint office of the FHLBanks established to facilitate the issuance and servicing of consolidated obligations, among other things. A failure or interruption of the Office of Finance's services as a result of breaches, cyber attacks, or technological outages could constrain or otherwise negatively affect the business operations of the FHLBanks, including disruptions to each FHLBank's access to funding through the sale of consolidated obligations. Moreover, any operational failure of the Office of Finance could expose us to the risk of loss of data or confidential information, or other harm, including reputational damage.

Other Third Parties.

Despite our policies, procedures, controls and initiatives, some operational risks are beyond our control, and the failure of other parties to adequately address their performance standards and operational risks could adversely affect us. In addition to internal computer systems, we outsource certain communication and information systems and other services critical to our business and regulatory compliance to third-party vendors and service providers, including derivatives clearing organizations and loan servicers.

We are developing processes to accept electronically created and executed electronic notes – "e-notes" – in our business both as an approved collateral type, and as a class of mortgage note we purchase in our MPP. This includes developing mortgage note custody arrangements with a third-party "e-vault" format and use of a mortgage note "e-registry" for certain classes of e-notes, which will affect both our MPP processes and our collateral management processes. Using e-notes will create additional operations risk, particularly with respect to the safekeeping, storage and security of mortgage-related records by third parties, as well as potential differences across multiple jurisdictions regarding (i) the validity, enforceability and transferability of security interests in e-notes, (ii) the recording, transferability, and priority of associated security instruments, and (iii) execution requirements for e-notes and other associated instruments. Laws governing e-notes also vary depending on the class of transaction at the time of issue, with potentially different legal regimes for consumer mortgage notes, open-ended or revolving HELOCs, and non-consumer mortgage lending, such as in commercial real estate and multifamily secured lending. Different requirements for the use of e-notes in different markets (e.g., consumer mortgage, HELOC, and commercial) increase operational risk. In addition, there are uncertainties surrounding how any such assets will be treated or valued in their respective markets, if liquidated. We cannot predict our members’ appetites for using e-notes generally, or in any particular class of transaction. E-notes generally have not seen wide adoption, and we cannot predict market acceptance for e-notes for any asset types.

Compromised security or operational errors at any third party with whom we conduct business, or at any third party's contractors, could expose us to cyber attacks, other breaches or service failures or interruptions. If one or more of these key external parties were not able to perform their functions for a period of time, at an acceptable service level, or with increased volumes, our business operations could be constrained, disrupted, or otherwise negatively affected. In addition, any failure, interruption or breach in security of these systems, any disruption of service, or any key external party's failure to perform its contractual obligations could result in failures or interruptions in our ability to conduct and manage our business effectively, including, without limitation, our advances, MPP, funding, hedging activities and regulatory compliance. There is no assurance that such failures or interruptions will not occur or, if they do occur, that they will be timely detected or adequately addressed by us or the third parties on which we rely. Any failure, interruption, or breach could significantly harm our customer relations and business operations, which could negatively affect our financial condition, results of operations, or ability to pay dividends or redeem or repurchase capital stock.

A Loss of Significant Borrowers, PFIs, Acceptable Loan Servicers or Other Financial Counterparties Could Adversely Impact Our Profitability, Our Ability to Achieve Business Objectives, Our Ability to Pay Dividends or Redeem or Repurchase Capital Stock, and Our Risk Concentration

The loss of any large borrower or PFI could adversely impact our profitability and our ability to achieve business objectives. The loss of a large borrower or PFI could result from a variety of factors, including acquisition, consolidation of charters within a bank holding company, a member's loss of market share, resolution of a financially distressed member, or regulatory changes relating to FHLBank membership.

Our top borrower had advances outstanding at December 31, 2019 totaling $4.3 billion, or 13% of the Bank's total advances outstanding, at par. Our top-selling PFI sold us mortgage loans during 2019 totaling $255 million, or 20% of the total mortgage loans purchased by the Bank in 2019.

Our larger PFIs originate mortgages on properties in several states. We also purchase mortgage loans from many smaller PFIs that predominantly originate mortgage loans on properties in Michigan and Indiana. Our concentration of MPP loans on properties in Michigan and Indiana could continue to increase over time, as we do not currently limit such concentration.

We do not service the mortgage loans we purchase. PFIs may elect to retain servicing rights for the loans sold to us, or they may elect to sell servicing rights to an MPP-approved servicer. Federal banking regulations and Dodd-Frank Act capital requirements are causing some mortgage servicing rights to be transitioned to non-depository institutions and may reduce the availability of buyers of mortgage servicing rights. A scarcity of mortgage servicers could adversely affect our results of operations.

The number of counterparties that meet our internal and regulatory standards for derivative, repurchase, federal funds sold, TBA, and other financial transactions, such as broker-dealers and their affiliates, has decreased over time. In addition, since the Dodd-Frank Act, the requirements for posting margin or other collateral to financial counterparties has tended to increase, both in terms of the amount of collateral to be posted and the types of transactions for which margin is now required. These factors tend to increase the risk exposure that we have to any one counterparty, and as such may tend to increase our reliance upon each of our counterparties. A failure of any one of our major financial counterparties, or continuing market consolidation, could affect our profitability, results of operations, and ability to enter into additional transactions with existing counterparties without exceeding internal or regulatory risk limits.

Changes to or Replacement of the LIBOR Benchmark Interest Rate Could Adversely Affect Our Business, Financial Condition and Results of Operations

Many of our assets and liabilities are indexed to LIBOR. On July 27, 2017, the Financial Conduct Authority ("FCA"), a regulator of financial services firms and financial markets in the United Kingdom, announced that it will plan for a phase-out of regulatory oversight of LIBOR interest rate indices. The FCA indicated that it will cease persuading or compelling banks to submit rates for the calculation of LIBOR after 2021, and that the continuation of LIBOR on the current basis cannot and will not be guaranteed after 2021. The FCA further indicated, however, that it will support the LIBOR indices through 2021 to allow for an orderly transition to an alternative reference rate. Under these circumstances, there is no assurance that LIBOR will continue to be accepted or used by the markets generally or by any issuers, investors, or counterparties at any time, even if LIBOR continues to be available.

On September 27, 2019, the Finance Agency issued a supervisory letter to the FHLBanks ("Supervisory Letter") relating to their planning for the LIBOR phase-out. With respect to investments, the Supervisory Letter directed that, by December 31, 2019, the FHLBanks stop purchasing investments that reference LIBOR and mature after December 31, 2021. In addition, for all product types except investments, the FHLBanks should, by March 31, 2020, no longer enter into new financial assets, liabilities or derivatives that reference LIBOR and mature after December 31, 2021. Further, the Supervisory Letter directs that the FHLBanks update their pledged collateral certification reporting requirements by March 31, 2020 in an effort to encourage members to distinguish LIBOR-linked collateral maturing past December 31, 2021.

As a result of the limitations introduced by the Supervisory Letter, we have had to alter our hedging strategies and interest-rate risk management. Such activities may have a negative effect on our financial condition and results of operations. Additionally, we may experience less flexibility in our access to funding, higher funding costs, or lower overall demand or increased costs for advances, which in turn may negatively affect the future composition of our balance sheet, capital stock levels, primary mission assets ratios, and net income.

In the United States, efforts to identify a set of alternative U.S. dollar reference interest rates include proposals by the Alternative Reference Rates Committee ("ARRC") of the FRB and the Federal Reserve Bank of New York. The ARRC has proposed the SOFR as its recommended alternative to U.S. dollar LIBOR. SOFR is based on a broad segment of the overnight Treasury repurchase market and is intended to be a measure of the cost of borrowing cash overnight collateralized by Treasury securities. The Federal Reserve Bank of New York began publishing a SOFR in the second quarter of 2018. In January 2019, we began participating in the issuance of SOFR-indexed CO bonds.

The market transition away from LIBOR to SOFR is expected to be complicated, including the development of terms and credit adjustments to accommodate differences between LIBOR and SOFR. The introduction of an alternative rate also may introduce additional basis risk for market participants, as an alternative index is utilized along with LIBOR during a transition period. During the market transition away from LIBOR, LIBOR may experience increased volatility or become less representative, and the overnight Treasury repurchase market underlying SOFR may also experience disruptions from time to time, which may result in unexpected fluctuations in SOFR.

There can be no guarantee that SOFR will become widely used or that alternative rates will not cause additional complications. The infrastructure necessary to manage hedging utilizing SOFR still needs to be built, and the transition in the markets and adjustments in our systems could be disruptive, with disruptions potentially beginning before the currently-planned phase-out of FCA support of LIBOR. A mechanism is not yet well-established to convert the credit and tenor features of LIBOR into any proposed replacement rate because markets which could facilitate such conversion are new and currently lack depth or liquidity. Moreover, there is no guarantee that, if the market is fully functioning at the time of the transition, the transition will be successful. Similarly, the transition from one reference rate to another could have accounting effects. For example, such transition could have an effect on our hedge effectiveness, which could affect our results of operations. Additionally, our risk management measuring, monitoring and valuation tools utilize LIBOR as a reference rate. Disruptions in the market for LIBOR and its regulatory framework, therefore, could have unanticipated effects on our risk management activities as well.

Given the large volume of LIBOR-based mortgages and financial instruments, and the size of our Agency MBS portfolio that utilizes a LIBOR-rate index, the basis adjustment to the replacement floating rate may have a significant impact on our financial results, but whether the net impact is positive or negative cannot yet be ascertained. We believe that other market participants, including our member institutions, derivatives clearing organizations, and other financial counterparties are also monitoring the LIBOR transition, but we cannot predict how such institutions will react to the transition, or what effects such reactions will have on us. We are not able to predict at this time whether LIBOR will cease to be available after 2021, whether SOFR or another alternative rate will become the sole market benchmark in place of LIBOR, whether the transitions to new reference rates will be successful, or what the impact of such a transition will be on the Bank's business, financial condition or results of operations.

Changes in the Legal and Regulatory Environment for FHLBanks, Other Housing GSEs or Our Members May Adversely Affect Our Business, Demand for Products, the Cost of Debt Issuance, and the Value of FHLBank Membership

We could be materially adversely affected by: the adoption of new or revised laws, policies, regulations or accounting guidance; new or revised interpretations or applications of laws, policies, or regulations by the Finance Agency, the SEC, the CFTC, the CFPB, the Financial Stability Oversight Council, the Comptroller General, the FASB or other federal or state financial regulatory bodies; or judicial decisions that alter the present regulatory environment. Likewise, whenever federal elections result in changes in the executive branch or in the balance of political parties' representation in Congress, there is increased uncertainty as to potential administrative, regulatory and legislative actions that may materially adversely affect our business.

Changes that restrict the growth or alter the risk profile of our current business or limit or prohibit the creation of new products or services could negatively impact our earnings and reduce the value of FHLBank membership. For example, our earnings could be negatively impacted by legislative or regulatory changes that (i) reduce demand for advances or limit advances we make to our members, (ii) further restrict the products and services we are able to provide to our members or how we do business with our members and counterparties, (iii) further restrict the types, characteristics or volume of mortgages that we may purchase through our MPP or otherwise reduce the economic value of MPP to our members, or (iv) otherwise require us to change the composition of our assets and liabilities. Our inability to adapt products and services to evolving industry standards and customer preferences in a highly competitive and regulated environment, while managing our expenses, could harm our business.

In addition, the regulatory environment in which our members provide financial products and services could be changed in a manner that negatively impacts their ability to take full advantage of our products and services, their desire to maintain membership in our Bank, or our ability to rely on their pledged collateral. Additionally, changes to the regulatory environment that affect our debt underwriters, particularly revised capital and liquidity requirements, could also adversely affect our cost of issuing debt in the capital markets.

Similarly, regulatory actions or public policy changes, including those that give preference to certain sectors, business models, regulated entities, assets, or activities, could negatively impact us. For example, changes in the status of Fannie Mae and Freddie Mac during the next phases of their conservatorships or as a result of legislative or regulatory changes, may impact funding costs for the FHLBanks, which could negatively affect our business and results of operations. In addition, negative news articles, industry reports, and other announcements pertaining to GSEs, including Fannie Mae, Freddie Mac or the FHLBanks, could cause an increase in interest rates on all GSE debt, as investors may perceive these issuers or their debt instruments as bearing increased risk.

The Finance Agency's Advisory Bulletin 2018-07 on liquidity became fully effective as of December 31, 2019. This advisory bulletin communicates the Finance Agency's expectations with respect to the maintenance of sufficient liquidity to enable the FHLBanks to provide advances and standby letters of credit ("SLOCs") for their members. Contemporaneously with the issuance of this advisory bulletin, the Finance Agency issued a supervisory letter that identifies initial thresholds for measures of liquidity within the established ranges set forth in the bulletin.

The advisory bulletin on liquidity not only provides direction on the level of on-balance sheet liquid assets related to base case liquidity, but as part of the base case liquidity measure, the advisory bulletin also includes a separate provision covering off-balance sheet commitments for SLOCs.

In addition, the advisory bulletin provides direction related to asset/liability maturity funding gap limits. Specifically, with respect to funding gaps and possible asset and liability mismatches, the advisory bulletin provides guidance on maintaining appropriate funding gaps for three-month and one-year maturity horizons. Initial percentages within prescribed ranges are identified in the supervisory letter. The advisory bulletin provides these limits to reduce the liquidity risks associated with a mismatch in asset and liability maturities.

The advisory bulletin may require us to hold an additional amount of liquid assets, which could reduce our ability to invest in higher-yielding assets. In certain circumstances we may also need to fund shorter-term advances with short-term discount notes that have maturities beyond those of the related advances, thus increasing our short-term advance pricing or reducing net income through lower net interest spreads. To the extent these increased prices make our advances less competitive, advance levels and net interest income may be negatively affected. Conversely, our cost of funding may increase if the advisory bulletin requires us to achieve appropriate funding gaps with longer-term funding.

On January 31, 2020, the Finance Agency issued Advisory Bulletin 2020-01 to provide guidance regarding an FHLBank's risk management of its AMA portfolio. The advisory bulletin requires an FHLBank's board of directors to establish various limits to control AMA-related risks, relating to AMA portfolio size, loan concentration, third-party loan originations, pricing, or other metrics. In turn, the advisory bulletin requires FHLBank management to establish thresholds below the board-established limits to serve as monitoring tools to manage AMA-related risk exposure. The FHLBanks should be able to demonstrate their progress towards adherence to this advisory bulletin by September 30, 2020 and are expected to have their final risk limits in place by December 31, 2020. The Finance Agency may issue a supervisory letter if it deems the board-established limits to be insufficient. The limits to be imposed pursuant to the advisory bulletin could have a material adverse effect on our MPP business.

The CFPB rules include standards for mortgage lenders to follow during the loan approval process to determine whether a borrower has the ability to repay the mortgage loan. The Dodd-Frank Act provides defenses to foreclosure and causes of action for damages if the mortgage lender does not meet the standards in the CFPB rules. A mortgage borrower can assert these defenses and causes of action against the original mortgage lender and against purchasers and other assignees of the mortgage loan, which would include us if we were to purchase a loan under our AMA programs or if we were to direct a servicer to foreclose on mortgage loan collateral. In addition, if we were to make advances secured by non-safe harbor qualified mortgages retained by a mortgage lender and subsequently were to liquidate such collateral, we could be subject to these defenses to foreclosure or causes of action for damages. This risk, in turn, could reduce the value of our advances collateral, potentially reducing our likelihood of full repayment on our advances if we were required to sell such collateral.

Regulatory reform since the most recent financial crisis has tended to increase the amount of margin collateral that we must provide to collateralize certain kinds of financial transactions, and has broadened the categories of transactions for which we are required to post margin. For example, the Dodd-Frank Act and related regulatory changes have increased the margin we must provide for cleared and uncleared derivative transactions and, effective in March 2021, Financial Industry Regulatory Authority ("FINRA") Rule 4210 will require us to exchange margin on certain MBS transactions. Materially greater margin requirements - due to Dodd-Frank Act derivatives regulatory requirements, FINRA Rule 4210, or otherwise - could adversely affect the availability and pricing of our derivative transactions, making such trades more costly and less attractive as risk management tools. New and expanded margin requirements on derivatives and MBS could also change our risk exposure to our counterparties and may require us to enhance further our systems and processes.

New and amended rules promulgated by our members' primary regulators may create unanticipated risks as well. For example, the largest members of the FHLBank System may have increased their advances levels in order to meet Basel III regulatory requirements. At the same time, changes to SEC guidance pertaining to prime money market funds have resulted in a significant increase in demand for government funds and Agency debt, as well as FHLBank discount notes. These developments could influence regulatory guidance, particularly with respect to liquidity. We cannot predict what effects, if any, these developments will have on the FHLBank System as a whole or upon our Bank, nor can we predict what additional regulatory actions may be taken as a result.

For more information, see *Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations - Recent Accounting and Regulatory Developments - Legislative and Regulatory Developments.*

Competition Could Negatively Impact Advances, the Supply of Mortgage Loans for our MPP, Our Access to Funding and Our Earnings

We operate in a highly competitive environment. Demand for advances is affected by, among other factors, the cost and availability of other sources of liquidity for our members, including customer deposits, brokered deposits, reciprocal deposits and public funds. We compete with other suppliers of wholesale funding, both secured and unsecured. Such other suppliers may include the United States government, the Federal Reserve Banks, corporate credit unions, the Central Liquidity Facility, investment banks, commercial banks, and in certain circumstances other FHLBanks. Large institutions may also have independent access to the national and global credit markets. Also, the availability of alternative funding sources to members, such as growth in deposits from members' banking customers, can significantly influence the demand for advances and can vary as a result of several factors, including legislative or regulatory changes, market conditions, members' creditworthiness, and availability of collateral. Lower demand for advances will negatively impact our earnings.

Likewise, our MPP is subject to significant competition. Direct competition for purchases of mortgages comes from other buyers of conventional, conforming, fixed-rate mortgage loans, such as Fannie Mae and Freddie Mac. In addition, PFIs face increased origination competition from originators that are not members of our Bank. Increased competition can result in a smaller share of the mortgages available for purchase through our MPP and, therefore, lower earnings.

We also compete with Fannie Mae, Freddie Mac, and other GSEs as well as corporate, sovereign, and supranational entities for funds raised through the issuance of CO bonds and discount notes. Increases in the supply of competing debt products may, in the absence of increases in demand, result in higher debt costs to us or lesser amounts of debt issued at the same cost than otherwise would be the case. There can be no assurance that our supply of funds through issuance of consolidated obligations will be sufficient to meet our future operational needs.

Changes in Interest Rates or Changes in the Differences Between Short-Term Rates and Long-Term Rates Could Have an Adverse Effect on Our Earnings

Our ability to prepare for changes in interest rates, or to hedge related exposures such as basis risk, significantly affects the success of our asset and liability management activities and our level of net interest income.

The effect of interest rate changes can be exacerbated by prepayment and extension risks, which are the risks that mortgage-based investments will be refinanced by borrowers in low interest-rate environments or will remain outstanding longer than expected at below-market yields when interest rates increase. Decreases in interest rates typically cause mortgage prepayments to increase, which may result in increased premium amortization expense and a decrease in the yield of our mortgage assets as we experience a return of principal that we must re-invest in a lower rate environment. While these prepayments would reduce the asset balance, our balance of consolidated obligations may remain outstanding. Conversely, increases in interest rates typically cause mortgage prepayments to decrease or mortgage cash flows to slow, possibly resulting in the debt funding the portfolio to mature and the replacement debt to be issued at a higher cost, thus reducing our interest spread.

A flattening or inverted yield curve, in which the difference between short-term interest rates and long-term interest rates is lower or negative, respectively, relative to prior market conditions, will tend to reduce, and has reduced, the net interest margin on new loans added to the MPP portfolio. Until such time as the yield curve becomes steeper, we may continue to earn lower spread income from that portfolio.

Although derivatives are used to mitigate market risk, they also introduce the potential for short-term earnings volatility, principally due to basis risk because we must use the OIS curve in place of the LIBOR rate curve as the discount rate to estimate the fair values of collateralized LIBOR-based interest-rate related derivatives while substantially all of the hedged items currently on the balance sheet are still valued using the LIBOR rate curve. Additionally, our U.S. Treasury liquidity portfolio is economically hedged with OIS interest rate swaps and may introduce income volatility due to non-symmetrical changes in U.S. Treasury rates and OIS swap rates.

A Failure of the Business and Financial Models and Related Processes Used to Evaluate Various Financial Risks and Derive Certain Estimates in Our Financial Statements Could Produce Unreliable Projections or Valuations, which Could Adversely Affect Our Business, Financial Condition, Results of Operations and Risk Management

We are exposed to market, business and operational risk, in part due to the significant use of business and financial models when evaluating various financial risks and deriving certain estimates in our financial statements. Our business could be adversely affected if these models fail to produce reliable projections or valuations. These models, which rely on various inputs including, but not limited to, loan volumes and pricing, market conditions for our consolidated obligations, interest-rate spreads and prepayment speeds, implied volatility of options contracts, and cash flows on mortgage-related assets, require management to make critical judgments about the appropriate assumptions that are used in the determinations of such risks and estimates and may overstate or understate the value of certain financial instruments, future performance expectations, or our level of risk exposure. Our models could produce unreliable results for a number of reasons, including, but not limited to, invalid or incorrect assumptions underlying the models, the need for manual adjustments in response to rapid changes in economic conditions, incorrect coding of the models, incorrect data being used by the models or inappropriate application of a model to products or events outside the model's intended use. In particular, models are less dependable when the economic environment is outside of historical experience, as has been the case in recent years.

A Failure to Meet Minimum Regulatory Capital Requirements Could Affect Our Ability to Pay Dividends, Redeem or Repurchase Capital Stock, Retain Existing Members and Attract New Members

We are required to maintain sufficient capital to meet specific minimum requirements established by the Finance Agency. If we violate any of these requirements or if our board or the Finance Agency determines that we have incurred, or are likely to incur, losses resulting, or expected to result, in a charge against capital, we would not be able to redeem or repurchase any capital stock while such charges are continuing or expected to continue, even if the statutory redemption period had expired for some or all of such stock. Violations of, or regulator-mandated adjustments to, our capital requirements could also restrict our ability to pay dividends, lend, invest, or purchase mortgage loans or participating interests in mortgage loans, or other business activities. Moreover, the Finance Agency could set varying expectations for FHLBanks’ capital levels in ways that have potentially negative impacts on FHLBanks’ business activities. Additionally, the Finance Agency could direct us to call upon our members to purchase additional capital stock to meet our minimum regulatory capital requirements. Members may be unable or unwilling to satisfy such calls for additional capital, thereby adversely affecting their ability to continue doing business with us and their desire to remain as members. Moreover, failure to pay dividends or redeem or repurchase stock at par, or a call upon our members to purchase additional stock to restore capital, could make it more difficult for us to attract new members.

The formula for calculating risk-based capital includes factors that depend on interest rates and other market metrics outside our control and could cause our minimum requirement to increase to a point exceeding our capital level. Further, if our retained earnings were to become inadequate, the Finance Agency could initiate restrictions consistent with those associated with a failure of a minimum capital requirement.

On December 16, 2019, the Finance Agency published a proposed amendment to its stress testing rule, to which the FHLBanks are currently subject. The proposed amendment would conform the rule to section 401 of the Economic Growth, Regulatory Relief, and Consumer Protection Act by increasing the minimum threshold for requiring stress testing by the regulated entities from $10 billion to $250 billion. As no FHLBank's total consolidated assets currently exceed $250 billion, the proposal would generally relieve the FHLBanks of stress testing requirements. Under the proposed rule, however, the Finance Agency Director would retain the authority and discretion to impose stress testing requirements on any FHLBank with assets below the $250 billion threshold. If we remain subject to those requirements, the results of the stress testing process could affect our approach to managing and deploying capital. The stress testing and capital planning processes could, among other things, require us to increase our capital levels, modify our business strategies, or decrease our exposure to various asset classes.

An Increase in Our Exposure to Credit Losses Could Adversely Affect Our Financial Condition and Results of Operations

We are exposed to credit risk as part of our normal business operations through member products, investment securities and counterparty obligations.

Member Products.

Advances. If a member fails and the appointed receiver or rehabilitator (or another applicable entity) does not either (i) promptly repay all of the failed institution's obligations to our Bank or (ii) properly assign or assume the outstanding advances, we may be required to liquidate the collateral pledged by the failed institution. The proceeds realized from the liquidation may not be sufficient to fully satisfy the amount of the failed institution's obligations plus the operational cost of liquidation, particularly if market price and interest-rate volatility adversely affect the value of the collateral. Price volatility could also adversely impact our determination of over-collateralization requirements, which could ultimately cause a collateral deficiency in a liquidation scenario. In some cases, we may not be able to liquidate the collateral for the value assigned to it or in a timely manner. Any of these scenarios could cause us to experience a credit loss, which in turn could adversely affect our financial condition and results of operations.

A deterioration of residential or commercial real estate property values could further affect the mortgages pledged as collateral for advances. In order to remain fully collateralized, we may require members to pledge additional collateral when we deem it necessary. If members are unable to fully collateralize their obligations with us, our advances could decrease further, negatively affecting our results of operations or ability to pay dividends or redeem or repurchase capital stock.

Mortgage Loans. If delinquencies in our fixed-rate mortgages increase and residential property values decline, we could experience reduced yields or losses exceeding the protection provided by the LRA and SMI credit enhancement and CE obligations, as applicable, on mortgage loans purchased through our MPP or the participating interests in MPF Program loans acquired from the FHLBank of Topeka or another MPF FHLBank.

We are the beneficiary of third-party PMI and SMI (where applicable) coverage on conventional mortgage loans that we acquire through our MPP, and we rely in part on such coverage to reduce the risk of losses on those loans. As a result of actions by their respective state insurance regulators, however, certain of our PMI providers may pay less than 100% of the claim amounts. The remaining amounts are deferred until the funds are available or the PMI provider is liquidated. It is possible that insurance regulators may impose restrictions on the ability of our other PMI/SMI providers to pay claims. If our PMI/SMI providers further reduce the portion of mortgage insurance claims they will pay to us or further delay or condition the payment of mortgage insurance claims, or if additional adverse actions are taken by their state insurance regulators, we could experience higher losses on mortgage loans.

We are also exposed to credit losses from servicers of mortgage loans purchased under our MPP or through participating interests in mortgage loans purchased from other FHLBanks under the MPF Program if they fail to perform their contractual obligations.

Investment Securities. The MBS market continues to face uncertainty over the potential changes in the Federal Reserve's holdings of MBS and the effect of any new or proposed actions. Additionally, future declines in housing prices, as well as other factors, such as increased loan default rates and loss severities and decreased prepayment speeds, may result in unrealized losses, which could adversely affect our financial condition.

We are also exposed to credit losses from third-party providers of credit enhancements on the MBS investments that we hold in our investment portfolios, including mortgage insurers, bond insurers and financial guarantors. Our results of operations could be adversely impacted if one or more of these providers fails to fulfill its contractual obligations to us.

Counterparty Obligations. We assume unsecured credit risk when entering into money market transactions and financial derivatives transactions with domestic and foreign counterparties or through derivatives clearing organizations. A counterparty default could result in losses if our credit exposure to that counterparty is not fully collateralized or if our credit obligations associated with derivative positions are over-collateralized. The insolvency or other inability of a significant counterparty, including a clearing organization, to perform its obligations under such transactions or other agreements could have an adverse effect on our financial condition and results of operations, as well as our ability to engage in routine derivative transactions. If we are unable to transact additional business with those counterparties, our ability to effectively use derivatives could be adversely affected, which could impair our ability to manage some aspects of our interest-rate risk.

Moreover, our ability to engage in routine derivatives, funding and other transactions could be adversely affected by the actions and commercial soundness of financial institutions that transact business with our counterparties. Financial services institutions are interrelated as a result of trading, clearing, counterparty and/or other relationships. Consequently, financial difficulties experienced by one or more financial services institutions could lead to market-wide disruptions that may impair our ability to find suitable counterparties for routine business transactions.

Downgrades of Our Credit Rating, the Credit Rating of One or More of the Other FHLBanks, or the Credit Rating of the Consolidated Obligations Could Adversely Impact Our Cost of Funds, Our Ability to Access the Capital Markets, and/or Our Ability to Enter Into Derivative Instrument Transactions on Acceptable Terms

The FHLBanks' consolidated obligations are rated Aaa/P-1 with a stable outlook by Moody's and AA+/A-1+ with a stable outlook by S&P. Rating agencies may from time to time lower a rating or issue negative reports. Because each FHLBank has joint and several liability for all FHLBank consolidated obligations, negative developments at any FHLBank may affect these credit ratings or result in the issuance of a negative report regardless of an individual FHLBank's financial condition and results of operations. In addition, because of the FHLBanks' GSE status, the credit ratings of the respective FHLBanks are generally influenced by the sovereign credit rating of the United States.

Based on the credit rating agencies' criteria, downgrades to the United States' sovereign credit rating and outlook may occur. As a result, similar downgrades in the credit ratings and outlook on the FHLBanks and the FHLBanks' consolidated obligations may also occur, even though they are not obligations of the United States.

Uncertainty remains regarding possible longer-term effects resulting from rating actions. Any future downgrades in the credit ratings and outlook, especially a downgrade to an S&P AA rating or equivalent, could result in higher funding costs, additional collateral posting requirements for certain derivative instrument transactions, or disruptions in our access to capital markets. To the extent that we cannot access funding when needed on acceptable terms to effectively manage our cost of funds, our financial condition and results of operations and the value of membership in our Bank may be negatively affected.

Restrictions on the Redemption, Repurchase, or Transfer of the Bank's Capital Stock Could Result in an Illiquid Investment for the Holder

Under the GLB Act, Finance Agency regulations, and our capital plan, our capital stock may be redeemed upon the expiration of a five-year redemption period, subject to certain conditions. Capital stock may become subject to redemption following the redemption period after a member (i) provides a written redemption notice to the Bank; (ii) gives notice of intention to withdraw from membership; (iii) attains nonmember status by merger or acquisition, charter termination, or other involuntary membership termination; or (iv) has its Bank capital stock transferred by a receiver or other liquidating agent for that member to a nonmember entity. Only capital stock that is not required to meet a member's membership capital stock requirement or to support a member or nonmember shareholder's outstanding activity with the Bank (excess capital stock) may be redeemed at the end of the redemption period. In addition, we may elect to repurchase some or all of the excess capital stock of a shareholder at any time at our sole discretion.

There is no guarantee, however, that we will be able to redeem shareholders' capital stock, even at the end of the prescribed redemption period, or to repurchase their excess capital stock. If a redemption or repurchase of capital stock would cause us to fail to meet our minimum regulatory capital requirements, Finance Agency regulations and our capital plan would prohibit the redemption or repurchase. Restrictions on the redemption or repurchase of our capital stock could result in an illiquid investment for holders of our stock. In addition, because our capital stock may only be owned by our members (or, under certain circumstances, former members and certain successor institutions), and our capital plan requires our approval before a member or nonmember shareholder may transfer any of its capital stock to another member or nonmember shareholder, we cannot provide assurance that we would allow a member or nonmember shareholder to transfer any excess capital stock to another member or nonmember shareholder at any time.

Providing Financial Support to Other FHLBanks Could Negatively Impact the Bank's Liquidity, Earnings and Capital and Our Members

We are jointly and severally liable with the other FHLBanks for the consolidated obligations issued on behalf of the FHLBanks through the Office of Finance. If another FHLBank were to default on its obligation to pay principal and interest on any consolidated obligations, the Finance Agency may allocate the outstanding liability among one or more of the remaining FHLBanks on a pro rata basis or on any other basis the Finance Agency may determine. In addition to possibly making payments due on consolidated obligations under our joint and several liability, we may voluntarily or involuntarily provide financial assistance to another FHLBank in order to resolve a condition of financial distress. Such assistance could negatively affect our financial condition, our results of operations and the value of membership in our Bank. Moreover, a Finance Agency regulation provides for an FHLBank System-wide annual minimum contribution to AHP of $100 million, and we could be liable for a pro rata share of that amount (based on the FHLBanks' combined net earnings for the previous year), up to 100% of our net earnings for the previous year. Thus, our ability to pay dividends to our members or to redeem or repurchase capital stock could be affected by the financial condition of one or more of the other FHLBanks.

The Inability to Identify Eligible Nominees for our Board of Directors and to Attract and Retain Key Personnel Could Adversely Affect the Bank's Operations

Under the Bank Act, at least 40% of our board of directors' seats must be held by independent directors, who must meet certain specialized and narrow eligibility requirements (including citizenship, residency and expertise) but are subject to specific term limits, as described in *Item 10. Directors, Executive Officers and Corporate Governance - Board of Directors*. We currently have eight independent directors on our board. Two of the independent directors will be term-limited as of December 31, 2020, and two others will be term-limited as of December 31, 2021; all four have served as directors of the Bank for 11 or more years. The Executive/Governance Committee of our board has established a subcommittee to assist the Committee and the board with respect to succession planning for directorships. As a result of the statutory limitations, however, we may be challenged in our ability to find prospective independent directors that meet the eligibility requirements.

We rely on key personnel for many of our functions and have a relatively small workforce, given the size and complexity of our business. Our ability to attract and retain personnel with the required technical expertise and specialized skills is important for us to manage our business and conduct our operations. Such ability could be challenged as employment in the United States improves.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

We own an office building containing approximately 117,000 square feet of office and storage space at 8250 Woodfield Crossing Boulevard, Indianapolis, IN, of which we use approximately 105,900 square feet. We lease or hold for lease to various tenants the remaining 11,100 square feet. We also maintain two leased off-site backup facilities of approximately 11,900 square feet and 200 square feet, respectively, which are on electrical distribution grids that are separate from each other and from our office building. For more information, see *Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations - Risk Management - Operational Risk Management*.

In the opinion of management, our physical properties are suitable and adequate. All of our properties are insured to approximately replacement cost. In the event we were to need more space, our lease terms with tenants generally provide the ability to move tenants to comparable space at other locations at our cost for moving and outfitting any replacement space to meet our tenants' needs.

ITEM 3. LEGAL PROCEEDINGS

In the ordinary course of business, we may from time to time become a party to lawsuits involving various business matters. We are unaware of any lawsuits presently pending which, individually or in the aggregate, could have a material effect on our financial condition or results of operations.

ITEM 4. MINE SAFETY DISCLOSURES

None.

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

We use acronyms and terms throughout this Item that are defined herein or in the *Defined Terms.*

No Trading Market

Our Class B capital stock is not publicly traded, and there is no established market for such stock. Members may be required to purchase additional shares of Class B stock from time to time in order to meet minimum stock purchase requirements under our capital plan. Our Class B stock may be redeemed, at a par value of $100 per share, up to five years after we receive a written redemption request by a member, subject to regulatory limits and the satisfaction of any ongoing stock purchase requirements applicable to the member. We may repurchase shares held by members in excess of their required holdings at our discretion at any time in accordance with our capital plan.

Our Class B common stock is registered under the Exchange Act. Because our shares of capital stock are "exempt securities" under the Securities Act, purchases and sales of stock by our members are not subject to registration under the Securities Act.

Number of Shareholders

As of February 29, 2020, we had 383 shareholders and $2.3 billion par value of regulatory capital stock, which includes Class B common stock and MRCS issued and outstanding.

Dividends

A cooperative enterprise enjoys the benefits of an integrated customer/shareholder base; however, there are certain tensions inherent in our membership structure that are unusual and unique to the FHLBanks. Because only member institutions and certain former members can own shares of our capital stock and, by statute and regulation, stock can be issued and repurchased only at par, there is no open market for our stock and no opportunity for stock price appreciation. As a result, return on equity can be received only in the form of dividends.

Dividends may, but are not required to, be paid on our Class B capital stock. Our board of directors may declare and pay dividends in either cash or capital stock or a combination thereof, subject to Finance Agency regulations. Under these regulations, stock dividends cannot be paid if our excess stock is greater than 1% of our total assets. At December 31, 2019, our excess stock was 0.91% of our total assets.

Our board of directors seeks to reward our members with a competitive, risk-adjusted return on their investment, particularly those who actively utilize our products. Our board of directors' decision to declare dividends is influenced by our financial condition, overall financial performance and retained earnings, as well as actual and anticipated developments in the overall economic and financial environment including the level of interest rates and conditions in the mortgage and credit markets. In addition, our board of directors considers several other factors, including our risk profile, regulatory requirements, our relationship with our members and the stability of our current capital stock position and membership.

Our capital plan provides for two sub-series of Class B capital stock: Class B-1 and Class B-2. Class B-1 is stock held by our members that is not subject to a redemption request, while Class B-2 is required stock that is subject to a redemption request. Class B-1 shareholders receive a higher dividend than Class B-2 shareholders. The Class B-2 dividend is presently equal to 80% of the amount of the Class B-1 dividend and can only be changed by an amendment to our capital plan with approval of the Finance Agency. The amount of the dividend to be paid is based on the average number of shares of each sub-series held by a member during the dividend payment period (applicable quarter). For more information, see *Notes to Financial Statements - Note 13 - Capital* and *Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations - Liquidity and Capital Resources - Capital Resources*.

We are exempt from federal, state, and local taxation, except for employment and real estate taxes. Despite our tax-exempt status, any cash dividends paid by us to our members are taxable dividends to the members, and our members do not benefit from the exclusion for corporate dividends received. *The preceding statement is for general information only; it is not tax advice. Members should consult their own tax advisors regarding particular federal, state, and local tax consequences of purchasing, holding, and disposing of our Class B stock, including the consequences of any proposed change in applicable law.*

We paid quarterly cash dividends as set forth in the following table ($ amounts in thousands).

	Class B-1				Class B-2			
By Quarter Paid	**Dividend on Capital Stock**	**Interest Expense on MRCS**	**Total**	**Annualized Dividend Rate [1]**	**Dividend on Capital Stock**	**Interest Expense on MRCS**	**Total**	**Annualized Dividend Rate [1]**
2020								
Quarter 1	$ 20,947	$ 2,906	$ 23,853	4.25 %	$ 3	$ 443	$ 446	3.40 %
2019								
Quarter 4	$ 22,960	$ 2,867	$ 25,827	4.75 %	$ 3	$ 858	$ 861	3.80 %
Quarter 3	28,336	1,521	29,857	5.50 %	3	141	144	4.40 %
Quarter 2	26,423	2,149	28,572	5.50 %	7	156	163	4.40 %
Quarter 1	26,480	2,153	28,633	5.50 %	4	150	154	4.40 %
2018								
Quarter 4	$ 21,470	$ 1,723	$ 23,193	4.50 %	$ 6	$ 125	$ 131	3.60 %
Quarter 3	21,115	1,842	22,957	4.50 %	4	159	163	3.60 %
Quarter 2	19,368	1,927	21,295	4.25 %	5	24	29	3.40 %
Quarter 1 [2]	11,481	1,014	12,495	2.50 %	6	20	26	2.00 %
Quarter 1	19,518	1,723	21,241	4.25 %	10	34	44	3.40 %

(1) Reflects the annualized dividend rate on all of our average capital stock outstanding in Class B-1 and Class B-2, respectively, regardless of its classification for financial reporting purposes as either capital stock or MRCS. The Class B-2 dividend is paid at 80% of the amount of the Class B-1 dividend.

(2) Reflects a supplemental cash dividend.

ITEM 6. SELECTED FINANCIAL DATA

We use acronyms and terms throughout this Item that are defined herein or in the *Defined Terms*. The following table should be read in conjunction with the financial statements and related notes and the discussion set forth in *Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations*. The table presents a summary of selected financial information derived from audited financial statements as of and for the years ended as indicated ($ amounts in millions).

	As of and for the Years Ended December 31,				
	2019	2018	2017	2016	2015
Statement of Condition:					
Advances	$ 32,480	$ 32,728	$ 34,055	$ 28,096	$ 26,909
Mortgage loans held for portfolio, net	10,815	11,385	10,356	9,501	8,146
Cash and short-term investments	5,079	7,610	4,601	4,128	4,932
Investment securities	18,718	13,378	13,027	11,880	10,415
Total assets	67,511	65,412	62,349	53,907	50,608
Discount notes	17,677	20,895	20,358	16,802	19,251
CO bonds	44,715	40,266	37,896	33,467	27,862
Total consolidated obligations	62,392	61,161	58,254	50,269	47,113
MRCS	323	169	164	170	14
Capital stock	1,974	1,931	1,858	1,493	1,528
Retained earnings	1,115	1,078	976	887	835
AOCI	68	42	112	56	23
Total capital	3,157	3,051	2,946	2,436	2,386
Statement of Income:					
Net interest income	$ 238	$ 288	$ 262	$ 198	$ 196
Provision for (reversal of) credit losses	—	—	—	—	—
Other income (loss)	20	21	(6)	6	10
Other expenses	99	92	82	78	72
AHP assessments	17	22	18	13	13
Net income	$ 142	$ 195	$ 156	$ 113	$ 121
Selected Financial Ratios:					
Net interest margin [(1)]	0.35 %	0.45 %	0.45 %	0.39 %	0.44 %
Return on average equity	4.55 %	6.43 %	5.88 %	4.92 %	5.13 %
Return on average assets	0.21 %	0.30 %	0.26 %	0.22 %	0.27 %
Weighted average dividend rate [(2)]	5.31 %	5.00 %	4.25 %	4.25 %	4.12 %
Dividend payout ratio [(3)]	73.13 %	47.87 %	43.05 %	53.87 %	52.48 %
Total capital ratio [(4)]	4.68 %	4.66 %	4.72 %	4.52 %	4.71 %
Total regulatory capital ratio [(5)]	5.05 %	4.86 %	4.81 %	4.73 %	4.70 %
Average equity to average assets	4.64 %	4.72 %	4.47 %	4.46 %	5.23 %

(1) Net interest income expressed as a percentage of average interest-earning assets.
(2) Dividends paid in cash during the year divided by the average amount of Class B capital stock eligible for dividends under our capital plan, excluding MRCS.
(3) Dividends paid in cash during the year divided by net income for the year.
(4) Capital stock plus retained earnings and AOCI expressed as a percentage of total assets.
(5) Capital stock plus retained earnings and MRCS expressed as a percentage of total assets.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Presentation

This discussion and analysis by management of the Bank's financial condition and results of operations should be read in conjunction with the *Financial Statements* and related *Notes to Financial Statements* contained in this Form 10-K. Management's discussion and analysis of results of operations for the year ended December 31, 2018 compared to the year ended December 31, 2017 is contained in the corresponding Item 7 in our 2018 Form 10-K, filed with the SEC on March 8, 2019.

As used in this Item, unless the context otherwise requires, the terms "we," "us," "our," and "Bank" refer to the Federal Home Loan Bank of Indianapolis or its management. We use acronyms and terms throughout this Item that are defined herein or in the *Defined Terms*.

Unless otherwise stated, amounts disclosed in this Item are rounded to the nearest million; therefore, dollar amounts of less than one million may not be reflected or, due to rounding, may not appear to agree to the amounts presented in thousands in the *Financial Statements* and related *Notes to Financial Statements*. Amounts used to calculate dollar and percentage changes are based on numbers in the thousands. Accordingly, calculations based upon the disclosed amounts (millions) may not produce the same results.

Executive Summary

Overview. As an FHLBank, we are a regional wholesale bank that serves as a financial intermediary between the capital markets and our members. The Bank is structured as a financial cooperative and therefore is generally designed to expand and contract in asset size as the needs of our members and their communities change over time. We primarily make secured loans in the form of advances to our members and purchase whole mortgage loans from our members. Additionally, we purchase other investments and provide other financial services to our members.

Our principal source of funding is the proceeds from the sale to the public of FHLBank debt instruments, called consolidated obligations, which are the joint and several obligation of all FHLBanks. We obtain additional funds from deposits, other borrowings, and the issuance of capital stock to our members.

Our primary source of revenue is interest earned on advances, mortgage loans, and investments, including MBS.

Our net interest income is primarily determined by the spread between the interest rate earned on our assets and the interest rate paid on our share of the consolidated obligations. We use funding and hedging strategies to manage the related interest-rate risk.

Due to our cooperative structure and wholesale nature, we typically earn a narrow interest spread. Accordingly, our net income is relatively low compared to our total assets and capital.

We group our products and services within two operating segments: *traditional* and *mortgage loans*.

For more background information on the Bank, see *Item 1. Business.*

Economic Environment. The Bank's financial performance is influenced by a number of regional and national economic and market factors, including the level and volatility of market interest rates, inflation or deflation, monetary policies, and the strength of housing markets.

The U.S. economy grew at a relatively strong rate during 2019. Trade deal risks minimized and the Federal Reserve delivered accommodative policy. During the fourth quarter, the U.S. Gross Domestic Product ("GDP") for the third quarter was revised upward to an annualized 2.1% from 1.9% in the initial estimate. This compares to an increase of 2.0% in the second quarter of 2019. According to the U.S. Department of Commerce, GDP rose in the third quarter as a result of increases in personal consumption expenditures, federal government spending, residential investment, exports, and state and local government spending. However, growth in household spending and business spending were both a little lower, continuing a three-month trend.

The FOMC began cutting interest rates at the end of July 2019, with a 25bps reduction in the Federal Funds rate. In September and October, the FOMC eased monetary policy again by cutting rates another 25bps during each meeting. At its meeting in December 2019, the FOMC maintained the target range for the Federal Funds rate at 1.50% - 1.75%. The changes in yields on U.S Treasuries were mixed during the fourth quarter of 2019 relative to the prevailing yields at the end of the third quarter, with lower rates in the short end of the curve and higher rates for maturities greater than 2 years.

In the first quarter of 2020, the yield on the 10-year U.S. Treasury note, which is a benchmark for mortgage and other loan rates, reached a record low, further inverting the yield curve. At an emergency meeting on March 3, 2020, the FOMC cut the target range for the Federal Funds rate to 1.00% - 1.25% due to the evolving risks to economic activity from the coronavirus.

The Federal Reserve is now reinvesting maturing investments held in its system open market account into a mix of Treasuries and Agency MBS. In September 2019, Chair Powell indicated the Federal Reserve will begin buying large amounts of Treasury Bills. To mitigate repurchase agreement market friction, the Federal Reserve is now holding an ongoing repurchase agreement operation and may begin a standing repurchase agreement facility in the near future.

The labor market continues to be very strong. January 2020 Non-Farm Payrolls showed strong gains of 225 thousand relative to expectations of 165 thousand. The labor force participation rate improved to 63.4%. January labor market strength was attributed to warmer weather, which could have the effect of pulling gains forward from February or March.

As interest rates and unemployment remain low, housing sales, both new and existing, and the mortgage market, both new purchase and refinance mortgages, have remained strong according to the National Association of Realtors.

Economic growth for Indiana improved through the third quarter on an absolute basis and relative to the U.S. despite a slow start to the year. Indiana's GDP grew at an annual rate of 2.3%, outpacing the national rate of 2.1%. The Indiana Center for Business and Economic Research and the Indiana Business Review both forecast continued economic growth in 2020, but expect significant deceleration at the state and national levels. Indiana's economy is particularly susceptible to changes in the manufacturing sector. According to the Bureau of Labor Statistics, manufacturing as a share of total U.S. employment has been on a near-consistent decline over the past several decades. With very few exceptions, Indiana has been the front-runner in manufacturing as a percentage of employment and manufacturing output since the late 1990's. As a result, economic growth is expected to continue, but at a rate lower than the national growth rate and below the current growth level.

The employment situation in Indiana remains strong. According to the Bureau of Labor Statistics, Indiana's unemployment rate as of the end of December 2019 was 2.8%, or 3.3% on a seasonally adjusted basis. The 2.8% unadjusted rate compares well versus the unadjusted U.S. rate of 3.3%, down from 3.6% one year ago. Despite a favorable unemployment rate, the level of job growth in Indiana, both created and filled, has lagged the national levels.

Michigan's GDP growth in 2019 of 2.5% was the highest rate among the Great Lakes states. The employment situation in Michigan remains solid and, compared to long-term averages, is quite strong. However, the 3.9% unemployment rate remains well above the 3.3% U.S. unemployment rate. This rate has declined each month since July 2019 when the unemployment rate was 4.3%. The UAW-GM strike negatively impacted employment and GDP in 2019.

Research Seminar in Quantitative Economics at the University of Michigan has forecast employment, payroll, and total income growth to continue through 2021, though at a declining rate each year.

Impact on Operating Results. Market interest rates and trends affect yields and margins on earning assets, including advances, purchased mortgage loans, and our investment portfolio, which contribute to our overall profitability. Additionally, market interest rates drive mortgage origination and prepayment activity, which can lead to net interest margin volatility in our MPP and MBS portfolios. A flat or inverted yield curve, in which the difference between short-term interest rates and long-term interest rates is low, or negative, respectively, can have an unfavorable impact on our net interest margins.

Lending and investing activity by our member institutions is a key driver for our balance sheet and income growth. Such activity is a function of both prevailing interest rates and economic activity, including local economic factors, particularly relating to the housing and mortgage markets. Positive economic trends could drive interest rates higher, which could impair growth of the mortgage market. A less active mortgage market could affect demand for advances and activity levels in our Advantage MPP. However, borrowing patterns between our insurance company and depository members can differ during various economic and market conditions, thereby easing the potential magnitude of core business fluctuations during business cycles. Member demand for liquidity during stressed market conditions can lead to advances growth.

Results of Operations and Changes in Financial Condition

Results of Operations for the Years Ended December 31, 2019 and 2018. The following table presents the comparative highlights of our results of operations ($ amounts in millions).

Condensed Statements of Comprehensive Income	Years Ended December 31, 2019	Years Ended December 31, 2018	$ Change	% Change
Net interest income	$ 238	$ 288	$ (50)	(18)%
Provision for (reversal of) credit losses	—	—	—	
Net interest income after provision for credit losses	238	288	(50)	(18)%
Other income (loss)	20	21	(1)	
Other expenses	99	92	7	
Income before assessments	159	217	(58)	(27)%
AHP assessments	17	22	(5)	
Net income	142	195	(53)	(27)%
Total other comprehensive income (loss)	25	(70)	95	
Total comprehensive income	$ 167	$ 125	$ 42	34 %

The decrease in net income for the year ended December 31, 2019 compared to 2018 was primarily due to the non-recurring net realized gain in 2018 on the sale of all of the Bank's private-label RMBS, higher net losses resulting from derivatives and hedging activities, and narrower spreads on the Bank's interest-earning assets, partially offset by net gains on trading securities. In general, we hold the derivatives and associated hedged items to the maturity, call, or put date. As a result, we expect that nearly all of the net gains (losses) on these financial instruments will reverse over the remaining contractual terms of the hedged items.

The increase in total OCI for the year ended December 31, 2019 compared to 2018 was primarily due to net unrealized gains on our AFS securities in 2019, compared to net unrealized losses on our AFS securities in 2018 and the reversal of previously unrealized gains as a result of the recognition of the net gain on the sale of the private-label RMBS in other income.

Results of Operations for the Years Ended December 31, 2018 and 2017. A comparison of our results of operations for the years ended December 31, 2018 and 2017 is contained in the corresponding Item 7 in our 2018 Form 10-K, filed with the SEC on March 8, 2019.

Changes in Financial Condition for the Year Ended December 31, 2019. The following table presents the comparative highlights of our changes in financial condition ($ amounts in millions).

Condensed Statements of Condition	December 31, 2019	December 31, 2018	$ Change	% Change
Advances	$ 32,480	$ 32,728	$ (248)	(1)%
Mortgage loans held for portfolio, net	10,815	11,385	(570)	(5)%
Cash and short-term investments [1]	5,079	7,610	(2,531)	(33)%
Investment securities and other assets [2]	19,137	13,689	5,448	40 %
Total assets	$ 67,511	$ 65,412	$ 2,099	3 %
Consolidated obligations	$ 62,392	$ 61,161	$ 1,231	2 %
MRCS	323	169	154	91 %
Other liabilities	1,639	1,031	608	59 %
Total liabilities	64,354	62,361	1,993	3 %
Capital stock	1,974	1,931	43	2 %
Retained earnings [3]	1,115	1,078	37	3 %
AOCI	68	42	26	62 %
Total capital	3,157	3,051	106	3 %
Total liabilities and capital	$ 67,511	$ 65,412	$ 2,099	3 %
Total regulatory capital [4]	$ 3,412	$ 3,178	$ 234	7 %

(1) Includes cash, interest-bearing deposits, securities purchased under agreements to resell, and federal funds sold.
(2) Includes trading, AFS and HTM securities.
(3) Includes restricted retained earnings at December 31, 2019 and 2018 of $251 million and $222 million, respectively.
(4) Total capital less AOCI plus MRCS.

The increase in total assets at December 31, 2019 compared to December 31, 2018 was substantially driven by additions to the Bank's liquidity portfolio, which includes trading securities.

The increase in total liabilities was attributable to an increase in consolidated obligations to support the Bank's growth in assets.

In addition to net income, the increase in total capital includes proceeds from issuance of capital stock, partially offset by shares reclassified to MRCS and dividends to members. The reclassification of shares to MRCS did not have a corresponding impact on regulatory capital because MRCS is included in regulatory capital.

Outlook. We believe that our financial performance will continue to provide reasonable, risk-adjusted returns for our members across a wide range of business, financial, and economic environments.

Alternative sources of wholesale funds available to our members, continued consolidation in the financial services industry, and run-off from captive insurance company advances have continued to pressure overall advances levels. We expect total advances outstanding to remain at or near their level at December 31, 2019.

In spite of the continuing strong demand by our members to participate in our Advantage MPP, we continue to limit our purchases of mortgage loans in order to prudently manage the associated market risk. As a result, we expect our mortgage loan balance outstanding to remain at or near its proportion of our total assets at December 31, 2019.

We continue to seek to maintain investments in MBS up to 300% of total regulatory capital. As a result, we expect to increase our Agency MBS holdings. Other long-term investments, such as Agency debentures, are likely to decline.

Embedded prepayment options and basis risk exposure increase both our market risk and earnings volatility. Because market mortgage rates have fallen, prepayment activity is expected to continue to increase, barring a large increase in market interest rates. As a result, the amortization of purchased premiums on mortgage assets could cause our earnings to decline.

Access to debt markets has been reliable, but the cost of our consolidated obligations has increased. Going forward, the cost will continue to depend on several factors, including the direction and level of market interest rates, competition from other issuers of Agency debt, changes in the investment preferences of potential buyers of Agency debt securities, global demand, pricing in the interest-rate swap market, and other technical market factors. As LIBOR phases out, some of our adjustable-rate funding is expected to be replaced by SOFR-indexed CO bonds. In 2019, we participated in the issuance of SOFR-indexed CO bonds and we will continue to do so in 2020.

Interest spreads across asset categories on our balance sheet have declined in the past year. Although debt costs remain low relative to historic norms, we anticipate spreads to continue to compress further before leveling out. We will continue to engage in various hedging strategies and use derivatives to assist in mitigating the volatility of earnings and the MVE that arises from the maturity structure of our financial assets and liabilities. Although derivatives are used to mitigate market risk, they also introduce the potential for short-term earnings volatility, in part due to basis risk. We must use the OIS curve in place of the LIBOR rate curve as the discount rate to estimate the fair values of collateralized LIBOR-based interest-rate related derivatives while substantially all of the hedged items currently on our balance sheet are still valued using the LIBOR rate curve. Such volatility may be greater in 2020 with the ongoing purchases of U.S. Treasury securities swapped to OIS.

We strive to keep our operating expense ratios relatively low while maintaining adequate systems, support, and staffing. We expect operating expenses to continue to increase beyond the rate of inflation as we continue to invest in operating and risk management systems and member service capabilities.

As a result of all of the foregoing factors, we forecasted net income in 2020 to be lower than net income in 2019.

Our board of directors seeks to reward our members with a competitive, risk-adjusted return on their investment, particularly those who actively utilize our products. Our board of directors' decision to declare dividends is influenced by our financial condition, overall financial performance and retained earnings, as well as actual and anticipated developments in the overall economic and financial environment, including the level of interest rates and conditions in the mortgage and credit markets. In addition, our board of directors considers several other factors, including our risk profile, regulatory requirements, our relationship with our members, and the stability of our current capital stock position and membership.

Analysis of Results of Operations for the Years Ended December 31, 2019 and 2018.

Net Interest Income. Net interest income, which is primarily the interest income on advances, mortgage loans held for portfolio, short-term investments, and investment securities less the interest expense on consolidated obligations and interest-bearing deposits, is our primary source of earnings. The following table presents average daily balances, interest income/expense, and average yields of our major categories of interest-earning assets and their funding sources ($ amounts in millions).

	Years Ended December 31,								
	2019			2018			2017		
	Average Balance	Interest Income/ Expense [1]	Average Yield [1]	Average Balance	Interest Income/ Expense	Average Yield	Average Balance	Interest Income/ Expense	Average Yield
Assets:									
Federal funds sold and securities purchased under agreements to resell	$ 6,246	$ 141	2.26 %	$ 5,938	$ 114	1.91 %	$ 4,919	$ 50	1.02 %
Investment securities [2]	16,465	419	2.54 %	13,038	350	2.69 %	12,621	240	1.90 %
Advances [3]	31,969	813	2.54 %	32,683	726	2.22 %	31,209	406	1.30 %
Mortgage loans held for portfolio [3]	11,252	358	3.17 %	10,902	354	3.25 %	9,922	315	3.17 %
Other assets (interest-earning) [4]	1,091	22	2.02 %	1,151	21	1.83 %	364	5	1.47 %
Total interest-earning assets	67,023	1,753	2.62 %	63,712	1,565	2.46 %	59,035	1,016	1.72 %
Other assets [5]	179			440			444		
Total assets	$ 67,202			$ 64,152			$ 59,479		
Liabilities and Capital:									
Interest-bearing deposits	$ 673	13	1.92 %	$ 641	11	1.72 %	$ 555	5	0.86 %
Discount notes	19,392	440	2.27 %	21,265	392	1.84 %	20,116	182	0.91 %
CO bonds [3]	42,994	1,050	2.44 %	38,518	866	2.25 %	35,302	560	1.59 %
MRCS	236	12	5.02 %	168	8	4.99 %	167	7	4.22 %
Other borrowings	2	—	2.28 %	—	—	— %	—	—	— %
Total interest-bearing liabilities	63,297	1,515	2.39 %	60,592	1,277	2.11 %	56,140	754	1.34 %
Other liabilities	790			531			679		
Total capital	3,115			3,029			2,660		
Total liabilities and capital	$ 67,202			$ 64,152			$ 59,479		
Net interest income		$ 238			$ 288			$ 262	
Net spread on interest-earning assets less interest-bearing liabilities			0.23 %			0.35 %			0.38 %
Net interest margin [6]			0.35 %			0.45 %			0.45 %
Average interest-earning assets to interest-bearing liabilities	1.06			1.05			1.05		

(1) In accordance with an amendment to accounting guidance effective January 1, 2019, hedging gains (losses) on qualifying fair-value hedging relationships are reported prospectively in net interest income instead of other income.

(2) Consists of trading, AFS and HTM securities. The average balances of AFS securities are based on amortized cost; therefore, the resulting yields do not reflect changes in the estimated fair value that are a component of OCI. Interest income/expense includes the effects of associated derivative transactions.

(3) Interest income/expense and average yield include all other components of interest, including the impact of net interest payments or receipts on derivatives in qualifying hedge relationships, amortization of hedge accounting adjustments, and prepayment fees on advances.

(4) Consists of interest-bearing deposits and loans to other FHLBanks (if applicable). Includes the rights or obligations to cash collateral, except for variation margin payments characterized as daily settled contracts. The 2017 amounts also include grantor trust assets that are included in other assets in 2018 and 2019, as a result of adopting ASU 2016-01.

(5) Includes changes in the estimated fair value of AFS securities, grantor trust assets in 2019 and 2018, and the effect of OTTI-related non-credit losses on AFS and HTM securities in 2018 and 2017.

(6) Net interest income expressed as a percentage of the average balance of interest-earning assets.

Changes in both volume and interest rates determine changes in net interest income and net interest margin. Changes in interest income and interest expense that are not identifiable as either volume-related or rate-related, but are attributable to both volume and rate changes, have been allocated to the volume and rate categories based upon the proportion of the volume and rate changes. The following table presents the changes in interest income and interest expense by volume and rate ($ amounts in millions).

	Year Ended December 31, 2019 vs. 2018		
Components	**Volume**	**Rate**	**Total**
Increase (decrease) in interest income:			
Federal funds sold and securities purchased under agreements to resell	$ 6	$ 21	$ 27
Investment securities	65	4	69
Advances	(16)	103	87
Mortgage loans held for portfolio	11	(7)	4
Other assets (interest-earning)	(1)	2	1
Total	65	123	188
Increase (decrease) in interest expense:			
Interest-bearing deposits	1	1	2
Discount notes	(37)	85	48
CO bonds	105	79	184
MRCS	4	—	4
Total	73	165	238
Increase (decrease) in net interest income	$ (8)	$ (42)	$ (50)

The decrease in net interest income for the year ended December 31, 2019 compared to 2018 was primarily due to a greater increase in interest rates associated with interest-bearing liabilities than with interest-earning assets and net hedging losses on qualifying fair-value hedging relationships. Beginning January 1, 2019, such gains (losses) are reported in net interest income. For more information, see *Notes to Financial Statements - Note 2 - Recently Adopted and Issued Accounting Guidance*.

Yields. The average yield on total interest-earning assets for the year ended December 31, 2019, including the impact of net hedging losses, was 2.62%, an increase of 16 bps compared to 2018, resulting primarily from increases in market interest rates that led to higher yields on advances. The average cost of total interest-bearing liabilities for the year ended December 31, 2019, including the impact of net hedging losses, was 2.39%, an increase of 28 bps due to higher funding costs on consolidated obligations. The net effect was a decrease in the net interest spread of 12 bps to 0.23% for the year ended December 31, 2019 from 0.35% for the year ended December 31, 2018.

Average Balances. The average balances outstanding of interest-earning assets for the year ended December 31, 2019 increased by 5% compared to 2018. The average balance of investment securities increased by 26% due to purchases of trading securities to enhance liquidity and, to a lesser extent, purchases of AFS securities. In spite of higher aggregate principal prepayments, the average amount of mortgage loans held for portfolio outstanding increased by 3% due to demand by our members for Advantage MPP. These increases were partially offset by a decrease in the average balance of advances of 2%, generally driven by a decline in member funding needs. The increase in average interest-bearing liabilities for the year ended December 31, 2019, compared to 2018, was due to an increase in average consolidated obligations of 4% to fund the increases in interest-earning assets.

Provision for Credit Losses. The change in the provision for (reversal of) credit losses for the year ended December 31, 2019 compared to 2018 was insignificant.

Other Income. The following table presents a comparison of the components of other income ($ amounts in millions).

Components	Years Ended December 31, 2019	2018
Net realized gains from sale of available-for-sale securities	$ —	$ 32
Net realized losses from sale of held-to-maturity securities	—	—
Net gains on trading securities [1]	33	—
Net gains (losses) on derivatives hedging trading securities	(12)	—
Net gains (losses) on all other derivatives not designated as hedging instruments	(7)	(8)
Net gains (losses) related to fair-value hedge ineffectiveness	—	(5)
Other	6	2
Total other income (loss)	$ 20	$ 21

(1) Excludes gains (losses) on associated derivatives.

The decrease in total other income for the year ended December 31, 2019 compared to 2018 was due to the net realized gain in 2018 on the sale of all of the Bank's private-label MBS and higher net losses on economic hedging relationships, partially offset by net gains on trading securities and the prospective reporting of hedging gains (losses) on qualifying fair-value hedging relationships in net interest income in 2019 instead of other income in 2018.

Net Gains (Losses) on Trading Securities. In January 2019, the Bank began purchasing fixed-rate U.S. Treasury securities to enhance liquidity. Those securities are classified as trading securities and are recorded at fair value, with changes in fair value reported in other income. There are a number of factors that affect the fair value of these securities, including changes in interest rates, the passage of time, and volatility. These trading securities are being economically hedged, so that over time the gains (losses) on these securities will be generally offset by the change in fair value of the associated derivatives.

Net Gains (Losses) on Derivatives and Hedging Activities. Our net gains (losses) on derivatives and hedging activities fluctuate due to volatility in the overall interest-rate environment as we hedge our asset or liability risk exposures. In general, we hold derivatives and associated hedged items to the maturity, call, or put date. Therefore, due to timing, nearly all of the cumulative net gains and losses for these financial instruments will generally reverse over the remaining contractual terms of the hedged item. However, there may be instances when we terminate these instruments prior to the maturity, call or put date. Terminating the financial instrument or hedging relationship may result in a realized gain or loss. For more information, see *Notes to Financial Statements - Note 9 - Derivatives and Hedging Activities.*

The Bank uses interest-rate swaps to hedge the risk of changes in the fair value of certain of its advances, consolidated obligations and AFS securities due to changes in market interest rates. These hedging relationships are designated as fair-value hedges. Changes in the estimated fair value of the derivative and, to the extent these relationships qualify for hedge accounting, changes in the fair value of the hedged item that are attributable to the hedged risk are recorded in earnings. For qualifying fair-value hedging relationships, in prior periods, the differences between the change in the estimated fair value of the hedged items attributable to the hedged risk and the change in the estimated fair value of the associated interest-rate swaps, i.e., hedge ineffectiveness, were reported in other income. Beginning January 1, 2019, such differences are reported in net interest income. For more information, see *Notes to Financial Statements - Note 2 - Recently Adopted and Issued Accounting Guidance.*

For the hedging relationships that qualified for hedge accounting, the hedge ineffectiveness resulted in a net loss of $24 million for the year ended December 31, 2019, which was recorded in net interest income, compared to a net loss of $5 million for the year ended December 31, 2018, which was recorded in other income. The losses for the years ended December 31, 2019 and 2018 were primarily due to marginal mismatches in durations on, and the increase in volume of, swapped GSE MBS, particularly Fannie Mae Delegated Underwriting and Servicing (DUS) MBS. As a result of issuing floating rate notes to fund these MBS purchases instead of swapped fixed-rate notes, the funding and operational costs have been reduced but there is less offsetting hedge ineffectiveness, resulting in higher unrealized hedging gains or losses.

To the extent those hedges did not qualify for hedge accounting, or ceased to qualify because they were determined to be ineffective, only the change in the fair value of the derivative was recorded in earnings with no offsetting change in the fair value of the hedged item.

For derivatives not qualifying for hedge accounting (economic hedges), the net interest settlements and the changes in the estimated fair value of the derivatives are recorded in other income as net gains (losses) on derivatives and hedging activities. For economic hedges, the Bank recorded a net loss of $19 million for the year ended December 31, 2019, primarily related to trading securities, compared to a net loss of $8 million for the year ended December 31, 2018.

The table below presents the effect of derivatives and hedging activities that are reported in either net interest income or other income ($ amounts in millions).

	Years Ended December 31,	
Components	**2019**	**2018**
Net changes in fair value [1]	$ (24)	$ (5)
Price alignment interest [2]	1	(5)
Amortization/accretion of gains (losses) on hedging relationships	(5)	(7)
Net gains (losses) on derivatives hedging trading securities	(12)	—
Other economic hedging gains (losses)	3	5
Total gains (losses) from derivatives and hedging activities before net interest settlements	(37)	(12)
Net interest settlements on derivatives [3]	51	18
Total gains (losses) from derivatives and hedging activities	$ 14	$ 6

(1) Relates to derivatives and hedged items in qualifying fair-value hedging relationships.
(2) Relates to derivatives for which variation margin payments are characterized as daily settled contracts.
(3) Represents interest income/expense on all derivatives. Excludes interest income/expense on associated hedged items.

Other Expenses. The following table presents a comparison of the components of other expenses ($ amounts in millions).

	Years Ended December 31,	
Components	**2019**	**2018**
Compensation and benefits	$ 55	$ 50
Other operating expenses	30	29
Finance Agency and Office of Finance	9	8
Other	5	5
Total other expenses	$ 99	$ 92

The increase in total other expenses for the year ended December 31, 2019 compared to 2018 was primarily due to increases in compensation and various employee benefits.

Office of Finance Expenses. The FHLBanks fund the costs of the Office of Finance as a joint office that facilitates issuing and servicing consolidated obligations, prepares the FHLBanks' combined quarterly and annual financial reports, and performs certain other functions. For each of the years ended December 31, 2019 and 2018, our assessments to fund the Office of Finance totaled $5 million.

Finance Agency Expenses. Each FHLBank is assessed a portion of the operating costs of our regulator, the Finance Agency. We have no direct control over these costs. For the years ended December 31, 2019 and 2018, our Finance Agency assessments totaled $4 million and $3 million, respectively.

AHP Assessments. The FHLBanks are required to set aside annually, in the aggregate, the greater of $100 million or 10% of their net earnings to fund the AHP. For purposes of the AHP calculation, net earnings is defined as income before assessments, plus interest expense related to MRCS, if applicable. For the years ended December 31, 2019 and 2018, our AHP expense was $17 million and $22 million, respectively. Our AHP expense fluctuates in accordance with our net earnings.

If we experienced a net loss during a quarter but still had net earnings for the year to date, our obligation to the AHP would be calculated based on our year-to-date net earnings. If we experienced a net loss for a full year, we would have no obligation to the AHP for the year, since our required annual contribution is limited to annual net earnings.

If the FHLBanks' aggregate 10% contribution were less than $100 million, each FHLBank would be required to contribute an additional pro rata amount. The proration would be based on the net earnings of each FHLBank in relation to the net earnings of all FHLBanks for the previous year, up to the Bank's annual net earnings. There was no shortfall in 2019 or 2018.

If we determine that our required AHP contributions are adversely affecting our financial stability, we may apply to the Finance Agency for a temporary suspension of our contributions. We did not make such an application in 2019 or 2018.

Total Other Comprehensive Income (Loss). Total OCI for the year ended December 31, 2019 was $25 million compared to a loss for the year ended December 31, 2018 of $70 million. Total other comprehensive income for the year ended December 31, 2019 consisted primarily of unrealized gains on AFS securities. Total other comprehensive loss for the year ended December 31, 2018 consisted primarily of unrealized losses on AFS securities and non-credit OTTI losses as a result of the recognition of the gain on the sale of our private-label RMBS in other income and the corresponding reversal of the unrealized gains previously recorded in OCI.

Operating Segments

Our products and services are grouped within two operating segments: traditional and mortgage loans.

Traditional. The traditional segment consists of (i) credit products (including advances, letters of credit, and lines of credit), (ii) investments (including federal funds sold, securities purchased under agreements to resell, interest-bearing demand deposit accounts, and investment securities), and (iii) correspondent services and deposits. The following table presents the financial performance of our traditional segment ($ amounts in millions).

Traditional	Years Ended December 31, 2019	2018
Net interest income	$ 182	$ 221
Provision for (reversal of) credit losses	—	—
Other income (loss)	20	22
Other expenses	85	78
Income before assessments	117	165
AHP assessments	13	17
Net income	$ 104	$ 148

The decrease in net income for the traditional segment for the year ended December 31, 2019 compared to 2018 was primarily due to the non-recurring net realized gain in 2018 on the sale of all of the Bank's private-label RMBS, higher net losses resulting from derivatives and hedging activities, and narrower spreads on the Bank's interest-earning assets, partially offset by net gains on trading securities. In general, we hold the derivatives and associated hedged items to the maturity, call, or put date. As a result, we expect to recover nearly all of the net losses on these financial instruments over the remaining contractual terms of the hedged items.

Mortgage Loans. The mortgage loans segment includes (i) mortgage loans purchased from our members through our MPP and (ii) participating interests purchased in 2012 - 2014 from the FHLBank of Topeka in mortgage loans originated by certain of its PFIs under the MPF Program. The following table presents the financial performance of our mortgage loans segment ($ amounts in millions).

Mortgage Loans	Years Ended December 31, 2019	2018
Net interest income	$ 56	$ 67
Provision for (reversal of) credit losses	—	—
Other income (loss)	—	(1)
Other expenses	14	14
Income before assessments	42	52
AHP assessments	4	5
Net income	$ 38	$ 47

The decrease in net income for the mortgage loans segment for the year ended December 31, 2019 compared to 2018 was due to lower net interest income, due primarily to an increase in amortization of purchase premium, resulting from higher prepayments, and an increase in amortization of concession fees resulting from called consolidated obligations.

Analysis of Financial Condition

Total Assets. The table below presents the comparative highlights of our major asset categories ($ amounts in millions).

	December 31, 2019		December 31, 2018	
Major Asset Categories	**Carrying Value**	**% of Total**	**Carrying Value**	**% of Total**
Advances	$ 32,480	48 %	$ 32,728	50 %
Mortgage loans held for portfolio, net	10,815	16 %	11,385	17 %
Cash and short-term investments	5,079	8 %	7,610	12 %
Trading securities	5,017	7 %	—	— %
Other investment securities	13,701	20 %	13,378	21 %
Other assets [(1)]	419	1 %	311	— %
Total assets	$ 67,511	100 %	$ 65,412	100 %

(1) Includes accrued interest receivable, premises, software and equipment, derivative assets and other miscellaneous assets.

Total assets as of December 31, 2019 were $67.5 billion, an increase of $2.1 billion, or 3%, compared to December 31, 2018, primarily driven by additions to our liquidity portfolio. Such additions caused a change in the mix of our total assets as the liquidity portfolio comprised 15% of total assets at December 31, 2019, compared to 12% at December 31, 2018.

Under the Finance Agency's Prudential Management and Operations Standards, if our non-advance assets were to grow by more than 30% over the six calendar quarters preceding a Finance Agency determination that we have failed to meet any of these standards, the Finance Agency would be required to impose one or more sanctions on us, which could include, among others, a limit on asset growth, an increase in the level of retained earnings, and a prohibition on dividends or the redemption or repurchase of capital stock. Through the six-quarter period ended December 31, 2019, our growth in non-advance assets did not exceed 30%.

Advances. In general, advances fluctuate in accordance with our members' funding needs, primarily determined by their deposit levels, mortgage pipelines, loan growth, investment opportunities, available collateral, other balance sheet strategies, and the cost of alternative funding options.

Advances at carrying value totaled $32.5 billion at December 31, 2019, a net decrease of $248 million, or 1%, compared to December 31, 2018.

The par value of advances to depository institutions, comprising commercial banks, savings institutions and credit unions, decreased by 2%. Advances to insurance companies decreased by 1%. Advances to depository institutions, as a percent of total advances outstanding at par value, were 53% at December 31, 2019, while advances to insurance companies were 47%.

The table below presents advances outstanding by type of financial institution ($ amounts in millions).

	December 31, 2019		December 31, 2018	
Borrower Type	**Par Value**	**% of Total**	**Par Value**	**% of Total**
Depository institutions:				
Commercial banks and saving institutions	$ 13,663	42 %	$ 14,019	43 %
Credit unions	2,798	9 %	3,099	10 %
Former members - depositories	540	2 %	268	— %
Total depository institutions	17,001	53 %	17,386	53 %
Insurance companies:				
Captive insurance companies [1]	2,724	8 %	2,936	9 %
Other insurance companies	12,541	39 %	12,491	38 %
Former members - insurance	6	— %	16	— %
Total insurance companies	15,271	47 %	15,443	47 %
Total advances	$ 32,272	100 %	$ 32,829	100 %

(1) Membership must terminate no later than February 19, 2021. See certain restrictions on and maturities of advances in *Notes to Financial Statements - Note 5 - Advances*.

Our advance portfolio is well-diversified with advances to commercial banks and savings institutions, credit unions, and insurance companies. Borrowing patterns between our insurance company and depository members can differ during various economic and market conditions, thereby easing the potential magnitude of core business fluctuations during business cycles.

Our advance portfolio includes fixed- and variable-rate advances, as well as callable or prepayable and putable advances. Prepayable advances may be prepaid on specified dates without incurring repayment or termination fees. All other advances may only be prepaid by the borrower paying a fee that is sufficient to make us financially indifferent to the prepayment of the advance.

The following table presents the par value of advances outstanding by product type and redemption term, some of which contain call or put options ($ amounts in millions).

	December 31, 2019		December 31, 2018	
Product Type and Redemption Term	**Par Value**	**% of Total**	**Par Value**	**% of Total**
Fixed-rate:				
Fixed-rate [(1)]				
Due in 1 year or less	$ 11,167	35 %	$ 14,670	45 %
Due after 1 year	7,479	23 %	6,927	21 %
Total	18,646	58 %	21,597	66 %
Callable or prepayable				
Due in 1 year or less	—	— %	10	— %
Due after 1 year	34	— %	39	— %
Total	34	— %	49	— %
Putable				
Due in 1 year or less	—	— %	—	— %
Due after 1 year	6,094	19 %	3,103	10 %
Total	6,094	19 %	3,103	10 %
Other [(2)]				
Due in 1 year or less	50	— %	133	— %
Due after 1 year	175	1 %	140	— %
Total	225	1 %	273	— %
Total fixed-rate	24,999	78 %	25,022	76 %
Variable-rate:				
Variable-rate [(1)]				
Due in 1 year or less	442	1 %	349	1 %
Due after 1 year	—	— %	—	— %
Total	442	1 %	349	1 %
Callable or prepayable				
Due in 1 year or less	133	— %	435	1 %
Due after 1 year	6,698	21 %	7,023	22 %
Total	6,831	21 %	7,458	23 %
Total variable-rate	7,273	22 %	7,807	24 %
Overdrawn demand and overnight deposit accounts	—	— %	—	— %
Total advances	$ 32,272	100 %	$ 32,829	100 %

(1) Includes advances without call or put options.
(2) Includes hybrid, fixed-rate amortizing/mortgage matched advances.

Advances due in one year or less decreased from 47% of the total outstanding, at par, at December 31, 2018 to 36% of the total outstanding, at par, at December 31, 2019, reflecting members' increased demand for longer-term funding. See *Notes to Financial Statements - Note 5 - Advances.*

Mortgage Loans Held for Portfolio. We purchase mortgage loans from our members to support our housing mission, provide an additional source of liquidity to our members, diversify our assets, and generate additional earnings. In general, our volume of mortgage loans purchased is affected by several factors, including interest rates, competition, the general level of housing and refinancing activity in the United States, consumer product preferences, our balance sheet capacity and risk appetite, and regulatory considerations.

In 2010, we began offering Advantage MPP for new conventional MPP loans, which utilizes an enhanced fixed LRA account for credit enhancement consistent with Finance Agency regulations, instead of utilizing a spread LRA with coverage from SMI providers. The only substantive difference between our original MPP and Advantage MPP for conventional mortgage loans is the credit enhancement structure. Upon implementation of Advantage MPP, the original MPP was phased out and is no longer being used for acquisitions of new conventional loans. For more detailed information about the credit enhancement structures for our original MPP and Advantage MPP, see *Item 1. Business - Operating Segments - Mortgage Loans*.

In 2012 - 2014, we purchased participating interests from the FHLBank of Topeka in mortgage loans originated by certain of its PFIs through their participation in the MPF Program.

A breakdown of mortgage loans held for portfolio by primary product type is presented below ($ amounts in millions).

	December 31, 2019		December 31, 2018	
Product Type	**UPB**	**% of Total**	**UPB**	**% of Total**
MPP:				
Conventional Advantage	$ 9,526	90 %	$ 9,874	89 %
Conventional Original	561	5 %	688	6 %
FHA	276	3 %	314	3 %
Total MPP	10,363	98 %	10,876	98 %
MPF Program:				
Conventional	176	2 %	208	2 %
Government	47	— %	54	— %
Total MPF Program	223	2 %	262	2 %
Total mortgage loans held for portfolio	$ 10,586	100 %	$ 11,138	100 %

The decrease in the UPB of mortgage loans held for portfolio was due to repayments of outstanding MPP and MPF Program loans exceeding purchases under Advantage MPP. Over time, the aggregate outstanding balance of mortgage loans purchased under our original MPP and the MPF Program will continue to decrease.

We have established and maintain an allowance for loan losses based on our best estimate of probable losses over the loss emergence period, which we have estimated to be 24 months. Our estimate of MPP losses remaining after borrowers' equity, but before credit enhancements, was $4 million at both December 31, 2019 and December 31, 2018. After consideration of the portion recoverable under the associated credit enhancements, the resulting allowance for MPP loan losses was less than $1 million at December 31, 2019 and 2018. For more information, see *Notes to Financial Statements - Note 7 - Allowance for Credit Losses* and *Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations - Risk Management - Credit Risk Management - Mortgage Loans Held for Portfolio - MPP.*

Cash and Investments. We maintain our investment portfolio for liquidity purposes, to use balance sheet capacity and to supplement our earnings. The earnings on our investments bolster our capacity to meet our commitments to affordable housing and community investments and to cover operating expenses. The following table presents a comparison of the components of our cash and investments at carrying value ($ amounts in millions).

	December 31,		
Components	**2019**	**2018**	**2017**
Cash and short-term investments:			
Cash and due from banks	$ 220	$ 101	$ 55
Interest-bearing deposits	809	1,211	660
Securities purchased under agreements to resell	1,500	3,213	2,606
Federal funds sold	2,550	3,085	1,280
Total cash and short-term investments	5,079	7,610	4,601
Trading securities:			
U.S. Treasury obligations	5,017	—	—
Total trading securities	5,017	—	—
Other investment securities:			
AFS securities:			
GSE and TVA debentures	3,927	4,277	4,404
GSE MBS	4,558	3,427	2,507
Private-label RMBS	—	—	218
Total AFS securities	8,485	7,704	7,129
HTM securities:			
Other U.S. obligations - guaranteed MBS	3,060	3,469	3,299
GSE MBS	2,156	2,205	2,553
Private-label RMBS and ABS	—	—	46
Total HTM securities	5,216	5,674	5,898
Total other investment securities	18,718	13,378	13,027
Total cash and investments, carrying value	$ 23,797	$ 20,988	$ 17,628

Cash and Short-Term Investments. The total outstanding balance and composition of our short-term investments are influenced by our liquidity needs, regulatory requirements, member advance activity, market conditions and the availability of short-term investments at attractive interest rates, relative to our cost of funds. For more information, see *Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations - Liquidity and Capital Resources - Liquidity.*

Cash and short-term investments at December 31, 2019 totaled $5.1 billion, a decrease of 33% compared to December 31, 2018. Cash and short-term investments as a percent of total assets were 8% at December 31, 2019 compared to 12% at December 31, 2018.

Trading Securities. In 2019, the Bank began purchasing U.S. Treasury securities as trading securities to enhance its liquidity in light of new liquidity guidance from the Finance Agency. Such securities outstanding at December 31, 2019 totaled $5.0 billion.

As a result, the liquidity portfolio at December 31, 2019 totaled $10.1 billion, an increase of $2.5 billion, or 33%, from December 31, 2018. Additionally, the mix has changed, with U.S. Treasury securities representing 50% of the liquidity portfolio at December 31, 2019.

Other Investment Securities. During the year ended December 31, 2018, for strategic, economic and operational reasons, we sold all of our private-label RMBS and ABS.

AFS securities at December 31, 2019 totaled $8.5 billion, an increase of $781 million, or 10%, from December 31, 2018. The increase resulted from purchases of GSE MBS to maintain a ratio of MBS and ABS to total regulatory capital of up to 300%.

Net unrealized gains on AFS securities at December 31, 2019 totaled $90 million, a net increase of $37 million compared to December 31, 2018, primarily due to changes in interest rates, credit spreads and volatility.

HTM securities at December 31, 2019 totaled $5.2 billion, a net decrease of $457 million, or 8%, compared to December 31, 2018. At December 31, 2019, the estimated fair value of our HTM securities totaled $5.2 billion, of which $2.8 billion was in an unrealized loss position, an increase of 16% from $2.4 billion at December 31, 2018, primarily due to changes in interest rates, credit spreads and volatility. The associated unrealized losses increased from $16 million at December 31, 2018 to $17 million at December 31, 2019.

Interest-Rate Payment Terms. Our investment securities are presented below by interest-rate payment terms ($ amounts in millions).

	December 31, 2019		December 31, 2018	
Interest-Rate Payment Terms	**Estimated Fair Value**	**% of Total**	**Estimated Fair Value**	**% of Total**
Trading Securities:				
U.S. Treasury obligations fixed-rate	$ 5,017	100 %	$ —	— %
Total trading securities	$ 5,017	100 %	$ —	— %
	Amortized Cost	**% of Total**	**Amortized Cost**	**% of Total**
AFS Securities:				
Total non-MBS fixed-rate	$ 3,885	46 %	$ 4,240	55 %
Total MBS fixed-rate	4,510	54 %	3,411	45 %
Total AFS securities	$ 8,395	100 %	$ 7,651	100 %
HTM Securities:				
MBS:				
Fixed-rate	$ 760	15 %	$ 936	16 %
Variable-rate	4,456	85 %	4,738	84 %
Total MBS	5,216	100 %	5,674	100 %
Total HTM securities	$ 5,216	100 %	$ 5,674	100 %
Total AFS and HTM securities:				
Total fixed-rate	$ 9,155	67 %	$ 8,587	64 %
Total variable-rate	4,456	33 %	4,738	36 %
Total AFS and HTM securities	$ 13,611	100 %	$ 13,325	100 %

The mix of fixed- vs. variable-rate AFS and HTM securities at December 31, 2019 was slightly higher compared to December 31, 2018, primarily due to purchases of fixed-rate MBS. However, all of the fixed-rate AFS securities are swapped to effectively create variable-rate securities, consistent with our balance sheet strategies to manage interest-rate risk.

Issuer Concentration. As of December 31, 2019, we held securities classified as trading, AFS and HTM from the following issuers with a carrying value greater than 10% of our total capital. The MBS issuers listed below include one or more trusts established as separate legal entities by the issuer. Therefore, the associated carrying and estimated fair values are not necessarily indicative of our exposure to that issuer ($ amounts in millions).

Name of Issuer	December 31, 2019 Carrying Value	December 31, 2019 Estimated Fair Value
Non-MBS:		
United States Department of the Treasury	$ 5,017	$ 5,017
Fannie Mae	1,662	1,662
Federal Farm Credit Banks	1,830	1,830
Freddie Mac	254	254
MBS:		
Freddie Mac	822	827
Fannie Mae	5,892	5,893
Ginnie Mae	3,060	3,053
Subtotal issuer concentration	18,537	18,536
All other issuers	181	181
Total investment securities	$ 18,718	$ 18,717

Investments by Year of Redemption. The following table provides, by year of redemption, carrying values for short-term investments as well as carrying values and yields for trading, AFS and HTM securities as of December 31, 2019 ($ amounts in millions).

Investments	Due in one year or less	Due after one year through five years	Due after five years through ten years	Due after ten years	Total
Short-term investments:					
Interest-bearing deposits	$ 809	$ —	$ —	$ —	$ 809
Securities purchased under agreements to resell	1,500	—	—	—	1,500
Federal funds sold	2,550	—	—	—	2,550
Total short-term investments	4,859	—	—	—	4,859
Trading Securities:					
U.S. Treasury obligations	4,167	850	—	—	5,017
Total trading securities	4,167	850	—	—	5,017
AFS Securities:					
GSE and TVA debentures	571	1,743	1,515	98	3,927
GSE MBS [(1)]	—	97	4,377	84	4,558
Total AFS securities	571	1,840	5,892	182	8,485
HTM Securities:					
Other U.S. obligations - guaranteed MBS [(1)]	—	—	—	3,060	3,060
GSE MBS [(1)]	516	165	5	1,470	2,156
Total HTM securities	516	165	5	4,530	5,216
Total investment securities	5,254	2,855	5,897	4,712	18,718
Total investments, carrying value	$ 10,113	$ 2,855	$ 5,897	$ 4,712	$ 23,577
Yield on trading securities	2.33 %	1.64 %	— %	— %	
Yield on AFS securities	1.71 %	1.89 %	2.84 %	2.70 %	
Yield on HTM securities	3.67 %	2.29 %	2.66 %	2.16 %	
Yield on total investment securities	2.39 %	1.84 %	2.84 %	2.18 %	

(1) Year of redemption on our MBS is based on contractual maturity. Their actual maturities will likely differ from contractual maturities as borrowers have the right to prepay their obligations with or without prepayment fees.

At December 31, 2019, based on contractual maturities, investment securities due in one year or less were 28%, due after one year through five years were 15%, due after 5 years through 10 years were 32%, and due after 10 years were 25%.

For more information about our investments, see *Notes to Financial Statements - Note 4 - Investment Securities*. For more information on the credit quality of our investments, see *Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations - Risk Management - Credit Risk Management - Investments*.

Total Liabilities. Total liabilities at December 31, 2019 were $64.4 billion, a net increase of $2.0 billion, or 3%, compared to December 31, 2018, substantially due to an increase in consolidated obligations.

Deposits (Liabilities). Total deposits at December 31, 2019 were $960 million, a net increase of $460 million, or 92%, compared to December 31, 2018. These deposits represent a relatively small portion of our funding. The balances of these accounts can fluctuate from period to period and vary depending upon such factors as the attractiveness of our deposit pricing relative to the rates available on alternative money market instruments, members' preferences with respect to the maturity of their investments, and members' liquidity.

The following table presents the average amount of, and the average rate paid on, each category of deposits that exceeds 10% of average total deposits ($ amounts in millions).

	Years Ended December 31,		
Category of Deposit	**2019**	**2018**	**2017**
Non-interest-bearing deposits:			
Average balance	$ 47	$ 57	$ 42
Interest-bearing deposits - demand and overnight			
Average balance	656	465	504
Average rate paid	1.90 %	1.64 %	0.72 %

We had no individual time deposits in amounts of $100 thousand or more at December 31, 2019 or 2018.

Consolidated Obligations. The overall balance of our consolidated obligations fluctuates in relation to our total assets and the availability of alternative sources of funds. The carrying value of consolidated obligations outstanding at December 31, 2019 totaled $62.4 billion, a net increase of $1.2 billion, or 2%, from December 31, 2018. This increase supported the Bank's growth in assets.

The composition of our consolidated obligations can fluctuate significantly based on comparative changes in their cost levels, supply and demand conditions, demand for advances, and our overall balance sheet management strategy. Discount notes are issued to provide short-term funds, while CO bonds are generally issued to provide a longer-term mix of funding.

The following table presents a breakdown by term of our consolidated obligations outstanding ($ amounts in millions).

	December 31, 2019		December 31, 2018	
By Term	**Par Value**	**% of Total**	**Par Value**	**% of Total**
Consolidated obligations due in 1 year or less:				
Discount notes	$ 17,713	28 %	$ 20,953	34 %
CO bonds	23,405	38 %	18,457	30 %
Total due in 1 year or less	41,118	66 %	39,410	64 %
Long-term CO bonds	21,258	34 %	21,918	36 %
Total consolidated obligations	$ 62,376	100 %	$ 61,328	100 %

The percentage due in 1 year or less increased from 64% at December 31, 2018 to 66% at December 31, 2019 as a result of seeking to maintain a sufficient liquidity and funding balance between our financial assets and financial liabilities. Additionally, the FHLBanks work collectively to manage FHLB System-wide liquidity and funding and jointly monitor System-wide refinancing risk. In managing and monitoring the amounts of assets that require refunding, the FHLBanks may consider contractual maturities of the financial assets, as well as certain assumptions regarding expected cash flows (i.e., estimated prepayments and scheduled amortizations). For more detailed information regarding contractual maturities of certain of our financial assets and liabilities, see *Notes to Financial Statements - Note 4 - Investment Securities*, *Note 5 - Advances*, and *Note 11 - Consolidated Obligations.*

The table below presents certain information for each category of our short-term borrowings for which the average balance outstanding during each year exceeded 30% of capital at the respective year end ($ amounts in millions).

	Discount Notes			CO Bonds With Original Maturities of One Year or Less		
Short-term Borrowings	**2019**	**2018**	**2017**	**2019**	**2018**	**2017**
Outstanding at year end	$ 17,677	$ 20,896	$ 20,358	$ 9,234	$ 8,001	$ 6,795
Weighted average rate at year end	1.59 %	2.34 %	1.22 %	1.22 %	2.38 %	1.26 %
Daily average outstanding for the year	$ 19,392	$ 21,265	$ 20,116	$ 9,683	$ 6,809	$ 6,315
Weighted average rate for the year	2.27 %	1.84 %	0.91 %	1.90 %	1.88 %	0.91 %
Highest outstanding at any month end	$ 24,124	$ 24,772	$ 22,413	$ 12,237	$ 8,001	$ 7,279

Derivatives. We classify interest-rate swaps as derivative assets or liabilities according to the net estimated fair value of the interest-rate swaps with each counterparty. As of December 31, 2019 and 2018, we had derivative assets, net of collateral held or posted, including accrued interest, with estimated fair values of $208 million and $117 million, respectively, and derivative liabilities, net of collateral held or posted, including accrued interest, with estimated fair values of $3 million and $21 million, respectively. The estimated fair values are based on a wide range of factors, including current and projected levels of interest rates, credit spreads and volatility. Increases and decreases in the fair value of derivatives are primarily caused by changes in the derivatives' respective underlying interest-rate indices.

The volume of derivative hedges is often expressed in terms of notional amounts, which is the amount upon which interest payments are calculated. The following table presents the notional amounts by type of hedged item whether or not it is in a qualifying hedge relationship ($ amounts in millions).

Hedged Item	**December 31, 2019**	**December 31, 2018**
Advances	$ 17,113	$ 13,980
Investments	13,917	8,562
Mortgage loans	991	1,038
CO bonds	17,031	14,239
Discount notes	1,350	—
Total notional	$ 50,402	$ 37,819

The increase in the total notional amount during the year ended December 31, 2019 of $12.6 billion, or 33%, was primarily due to purchases of U.S. Treasury securities in economic hedging relationships.

The following table presents the cumulative impact of fair-value hedging basis adjustments on our statement of condition ($ amounts in millions).

December 31, 2019	**Advances**	**Investments**	**CO Bonds**	**Total**
Cumulative fair-value hedging basis adjustments on hedged items	$ 207	$ 150	$ (8)	$ 349
Estimated fair value of associated derivatives, net	(200)	(193)	4	(389)
Net cumulative fair-value hedging basis adjustments	$ 7	$ (43)	$ (4)	$ (40)

Total Capital. Total capital at December 31, 2019 was $3.2 billion, a net increase of $106 million, or 3%, compared to December 31, 2018. In addition to net income, this increase includes proceeds from issuance of capital stock of $194 million, partially offset by shares reclassified to MRCS totaling $151 million and dividends to members totaling $104 million.

The following table presents a percentage breakdown of the components of GAAP capital.

Components	December 31, 2019	December 31, 2018
Capital stock	63 %	63 %
Retained earnings	35 %	36 %
AOCI	2 %	1 %
Total GAAP capital	100 %	100 %

The components of GAAP capital were relatively unchanged at December 31, 2019 compared to December 31, 2018.

The following table presents a reconciliation of GAAP capital to regulatory capital ($ amounts in millions).

Reconciliation	December 31, 2019	December 31, 2018
Total GAAP capital	$ 3,157	$ 3,051
Exclude: AOCI	(68)	(42)
Add: MRCS	323	169
Total regulatory capital	$ 3,412	$ 3,178

The shares reclassified to MRCS did not have a corresponding impact on total regulatory capital.

Liquidity and Capital Resources

Liquidity. We manage our liquidity in order to be able to satisfy our members' needs for short- and long-term funds, repay maturing consolidated obligations, redeem or repurchase excess stock and meet other financial obligations. We are required to maintain liquidity in accordance with the Bank Act, certain Finance Agency regulations and related policies established by our management and board of directors.

Our primary sources of liquidity are holdings of liquid assets, comprised of cash, short-term investments, and trading securities, as well as the issuance of consolidated obligations.

Our cash and short-term investments at December 31, 2019 totaled $5.1 billion. Our short-term investments generally consist of high-quality financial instruments, many of which mature overnight. Our trading securities at December 31, 2019 totaled $5.0 billion and consisted solely of U.S. Treasury securities. As a result, our liquidity portfolio at December 31, 2019 totaled $10.1 billion, or 15% of total assets.

Historically, our status as a GSE and favorable credit ratings have provided us with excellent access to capital markets. Our consolidated obligations are not obligations of, and they are not guaranteed by, the United States government, although they have historically received the same credit rating as the United States government bond credit rating. The rating has not been affected by rating actions taken with respect to individual FHLBanks. During the year ended December 31, 2019, we maintained sufficient access to funding; our net proceeds from the issuance of consolidated obligations totaled $383.0 billion.

In addition, by statute, the United States Secretary of the Treasury may acquire our consolidated obligations up to an aggregate principal amount outstanding of $4.0 billion. This statutory authority may be exercised only if alternative means cannot be effectively employed to permit us to continue to supply reasonable amounts of funds to the mortgage market, and the ability to supply such funds is substantially impaired because of monetary stringency and a high level of interest rates. Any funds borrowed would be repaid at the earliest practicable date. As of this date, this authority has never been exercised.

However, to protect us against temporary disruptions in access to the debt markets, the Finance Agency currently requires us to: (i) maintain contingent liquidity sufficient to cover, at a minimum, 10 calendar days of inability to issue consolidated obligations; (ii) have available at all times an amount greater than or equal to our members' current deposits invested in specific assets; (iii) maintain, in the aggregate, unpledged qualifying assets in an amount at least equal to our participation in total consolidated obligations outstanding; and (iv) maintain, through short-term investments, an amount at least equal to our anticipated cash outflows under hypothetical adverse scenarios.

In 2018, the Finance Agency issued an Advisory Bulletin on FHLBank liquidity that communicates the Finance Agency's expectations with respect to the maintenance of sufficient liquidity. The Bank has fully implemented such liquidity guidance on a timely basis. After December 31, 2019, the standard increased from 10 to 20 calendar days of liquidity sufficient to cover an inability to issue consolidated obligations. Our liquidity exceeded the 20-day standard at December 31, 2019. As a result of recent market conditions, however, the Finance Agency has indicated that the FHLBanks may revert to 10 days of liquidity through April 30, 2020, but should plan to return to 20 days of liquidity by September 30, 2020. We anticipate our liquidity will continue to meet or exceed the Finance Agency's standards going forward.

To support deposits, the Bank Act requires us to have at all times a liquidity deposit reserve in an amount equal to the current deposits received from our members invested in (i) obligations of the United States, (ii) deposits in eligible banks or trust companies, or (iii) advances with a maturity not exceeding five years. The following table presents our excess liquidity deposit reserves ($ amounts in millions).

	December 31, 2019	December 31, 2018
Liquidity deposit reserves	$ 35,218	$ 33,109
Less: total deposits	960	500
Excess liquidity deposit reserves	$ 34,258	$ 32,609

We must maintain assets that are free from any lien or pledge in an amount at least equal to the amount of our consolidated obligations outstanding from among the following types of qualifying assets:

- cash;
- obligations of, or fully guaranteed by, the United States;
- advances;
- mortgages that have any guaranty, insurance, or commitment from the United States or any agency of the United States; and
- investments described in Section 16(a) of the Bank Act, which include, among others, securities that a fiduciary or trustee may purchase under the laws of the state in which the FHLBank is located.

The following table presents the aggregate amount of our qualifying assets to the total amount of our consolidated obligations outstanding ($ amounts in millions).

	December 31, 2019	December 31, 2018
Aggregate qualifying assets	$ 67,170	$ 65,158
Less: total consolidated obligations outstanding	62,392	61,161
Aggregate qualifying assets in excess of consolidated obligations	$ 4,778	$ 3,997
Ratio of aggregate qualifying assets to consolidated obligations	1.08	1.07

We also maintain a contingency liquidity plan designed to enable us to meet our obligations and the liquidity needs of our members in the event of short-term capital market disruptions, or operational disruptions at our Bank and/or the Office of Finance.

New or amended regulatory guidance from the Finance Agency could continue to increase the amount and change the characteristics of liquidity that we are required to maintain. We have not identified any other trends, demands, commitments, or events that are likely to materially increase or decrease our liquidity.

Changes in Cash Flow. The cash flows from our assets and liabilities support our mission to provide our members with competitively priced funding, a reasonable return on their investment in our capital stock, and support for community investment activities. The balances of our assets and liabilities can vary significantly in the normal course of business due to the amount and timing of cash flows, which are affected by member-driven activities and market conditions. Net cash provided by (used in) operating activities for the year ended December 31, 2019 was $(129) million, compared to net cash provided by operating activities of $353 million for the year ended December 31, 2018. The decrease was substantially due to the fluctuation in variation margin payments on cleared derivatives. Such payments are treated by the clearinghouses as daily settled contracts.

Capital Resources.

Total Regulatory Capital. The following table provides a breakdown of our outstanding capital stock and MRCS ($ amounts in millions).

By Type of Member Institution	December 31, 2019 Amount	December 31, 2019 % of Total	December 31, 2018 Amount	December 31, 2018 % of Total
Capital Stock:				
Depository institutions:				
Commercial banks and savings institutions	$ 955	42 %	$ 985	47 %
Credit unions	277	12 %	263	12 %
Total depository institutions	1,232	54 %	1,248	59 %
Insurance companies	742	32 %	683	33 %
CDFIs	—	— %	—	— %
Total capital stock, putable at par value	1,974	86 %	1,931	92 %
MRCS:				
Captive insurance companies	136	6 %	132	6 %
Former members [(1)]	187	8 %	37	2 %
Total MRCS	323	14 %	169	8 %
Total regulatory capital stock	$ 2,297	100 %	$ 2,100	100 %

(1) Balances include $1 million at both December 31, 2019 and 2018 of MRCS that had reached the end of the five-year redemption period but will not be redeemed until the associated credit products and other obligations are no longer outstanding.

Our remaining captive insurance company members that do not meet the regulatory definition of "insurance company" or fall within another category of institution that is eligible for FHLBank membership under the Final Membership Rule shall have their memberships terminated no later than February 19, 2021. Upon termination, all of their outstanding Class B capital stock will be repurchased or redeemed in accordance with the Final Membership Rule.

Excess Capital Stock. Capital stock that is not required as a condition of membership or to support outstanding obligations of members or former members to us is considered excess capital stock. In general, the level of excess capital stock fluctuates with our members' level of advances.

The following table presents the composition of our excess capital stock ($ amounts in millions).

Components	December 31, 2019	December 31, 2018
Member capital stock not subject to outstanding redemption requests	$ 441	$ 450
Member capital stock subject to outstanding redemption requests	1	1
MRCS	175	25
Total excess capital stock	$ 617	$ 476
Excess stock as a percentage of regulatory capital stock	27 %	23 %

The increase in excess stock during the year ended December 31, 2019 resulted primarily from member merger activity.

Finance Agency rules limit the ability of an FHLBank to issue excess stock under certain circumstances, including when its total excess stock exceeds 1% of total assets or if the issuance of excess stock would cause total excess stock to exceed 1% of total assets. Our excess stock at December 31, 2019 was 0.91% of our total assets. Therefore, subject to these regulatory limitations, we are currently permitted to issue new excess stock to members and distribute stock dividends, should we choose to do so.

Under our capital plan, we are not required to redeem excess stock from a member until five years after the earliest of (i) termination of the membership, (ii) our receipt of notice of voluntary withdrawal from membership, or (iii) the member's request for redemption of its excess stock. At our discretion, we may repurchase, and have repurchased from time to time, excess stock without a member request, upon approval of our board of directors and with 15 days' notice to the member in accordance with our capital plan.

Statutory and Regulatory Restrictions on Capital Stock Redemption. In accordance with the Bank Act, each class of FHLBank stock is considered putable by the member. However, there are significant statutory and regulatory restrictions on our obligation to redeem, or right to repurchase, the outstanding stock, including the following:

- We may not redeem or repurchase any capital stock if, following such action, we would fail to satisfy any of our minimum capital requirements. By law, no capital stock may be redeemed or repurchased at any time at which we are undercapitalized.
- We may not redeem or repurchase any capital stock without approval of the Finance Agency if either our board of directors or the Finance Agency determines that we have incurred, or are likely to incur, losses resulting, or expected to result, in a charge against capital while such charges are continuing or expected to continue.

Additionally, we may not redeem or repurchase shares of capital stock from any member if (i) the principal or interest due on any consolidated obligation has not been paid in full when due; (ii) we fail to certify in writing to the Finance Agency that we will remain in compliance with our liquidity requirements and will remain capable of making full and timely payment of all of our current obligations; (iii) we notify the Finance Agency that we cannot provide the foregoing certification, project that we will fail to comply with statutory or regulatory liquidity requirements or will be unable to timely and fully meet all of our obligations; (iv) we actually fail to comply with statutory or regulatory liquidity requirements or to timely and fully meet all of our current obligations; or (v) we enter or negotiate to enter into an agreement with one or more FHLBanks to obtain financial assistance to meet our current obligations.

If, during the period between receipt of a stock redemption notification from a member and the actual redemption (which may last indefinitely if any of the restrictions on capital stock redemption discussed above have occurred), the Bank is liquidated, merged involuntarily, or merges upon our board of directors' approval or consent with one or more other FHLBanks, the consideration for the stock or the redemption value of the stock will be established after the settlement of all senior claims. Generally, no claims would be subordinated to the rights of our shareholders.

Our capital plan permits us, at our discretion, to retain the proceeds of redeemed or repurchased stock if we determine that there is an existing or anticipated collateral deficiency related to a member's obligations to us until the member delivers other collateral to us, such obligations have been satisfied or the anticipated collateral deficiency is otherwise resolved to our satisfaction.

If the Bank were to be liquidated, after payment in full to our creditors, our shareholders would be entitled to receive the par value of their capital stock as well as retained earnings, if any, in an amount proportional to the shareholder's allocation of total shares of capital stock at the time of liquidation. In the event of a merger or consolidation, our board of directors must determine the rights and preferences of our shareholders, subject to any terms and conditions imposed by the Finance Agency.

Capital Distributions. We may, but are not required to, pay dividends on our capital stock. Dividends are non-cumulative and may be paid in cash or Class B capital stock out of current net earnings or from unrestricted retained earnings, as authorized by our board of directors and subject to Finance Agency regulations. No dividend may be declared or paid if we are or would be, as a result of such payment, in violation of our minimum capital requirements. Moreover, we may not pay dividends if any principal or interest due on any consolidated obligation issued on behalf of any of the FHLBanks has not been paid in full or, under certain circumstances, if we fail to satisfy liquidity requirements under applicable Finance Agency regulations. For more information, see *Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities*.

On February 20, 2020, our board of directors declared a cash dividend of 4.25% (annualized) on our Class B-1 capital stock and 3.40% (annualized) on our Class B-2 capital stock.

Restricted Retained Earnings. In accordance with the JCE agreement, we allocate 20% of our net income each quarter to a restricted retained earnings account until the balance of that account equals at least 1% of the average balance of outstanding consolidated obligations for the previous quarter. These restricted retained earnings will not be available from which to pay dividends except to the extent the restricted retained earnings balance exceeds 1.5% of our average balance of outstanding consolidated obligations for the previous quarter. We do not expect either level to be reached for several years.

Adequacy of Capital. In addition to possessing the authority to prohibit stock redemptions, our board of directors has the right to require our members to make additional capital stock purchases as needed to satisfy statutory and regulatory capital requirements.

Our board of directors has a statutory obligation to review and adjust member capital stock requirements in order to comply with our minimum capital requirements, and each member must comply promptly with any such requirement. However, a member could reduce its outstanding business with us as an alternative to purchasing stock.

Our board of directors assesses the adequacy of our capital every quarter, prior to the declaration of our quarterly dividend, by reviewing various measures set forth in our Capital Markets Policy. We developed our Capital Markets Policy based on guidance from the Finance Agency.

We must maintain sufficient permanent capital to meet the combined credit risk, market risk and operations risk components of the risk-based capital requirement.

- **Permanent capital** is defined as the amount of our Class B stock (including MRCS) plus our retained earnings. We are required to maintain permanent capital at all times in an amount equal to our risk-based capital requirement, which includes the following components:
    - **Credit risk**, which represents the sum of our credit risk charges for all assets, off-balance sheet items and derivative contracts, calculated using the methodologies and risk weights assigned to each classification in the regulations;
    - **Market risk**, which represents the sum of the market value of our portfolio at risk from movements in interest rates, foreign exchange rates, commodity prices, and equity prices that could occur during periods of market stress, and the amount by which the market value of total capital is less than 85% of the book value of total capital; and
    - **Operations risk**, which represents 30% of the sum of our credit risk and market risk capital requirements.

As presented in the following table, we were in compliance with the risk-based capital requirement at December 31, 2019 and 2018 ($ amounts in millions).

Risk-Based Capital Components	December 31, 2019	December 31, 2018
Credit risk	$ 294	$ 307
Market risk	198	298
Operations risk	147	182
Total risk-based capital requirement	$ 639	$ 787
Permanent capital	$ 3,412	$ 3,178

The decrease in our total risk-based capital requirement was primarily caused by a decrease in the market risk components due to changes in the market environment, including interest rates, spreads, volatility and changes in balance sheet composition. The operations risk component is calculated as 30% of the credit and market risk capital components. Our permanent capital at December 31, 2019 remained well in excess of our total risk-based capital requirement.

By regulation, the Finance Agency may mandate us to maintain a greater amount of permanent capital than is generally required by the risk-based capital requirements as defined, in order to promote safe and sound operations. In addition, a Finance Agency rule authorizes the Director to issue an order temporarily increasing the minimum capital level for an FHLBank if the Director determines that the current level is insufficient to address such FHLBank's risks. The rule sets forth several factors that the Director may consider in making this determination.

Under the Dodd-Frank Act, as implemented by the Finance Agency, each FHLBank is required to perform an annual stress test to assess the potential impact of various financial and economic conditions on capital adequacy. Our annual stress test was completed and published in November 2019, based on our financial condition as of December 31, 2018, using the methodology prescribed by the Finance Agency. Our stress test results demonstrated our capital adequacy under the severely adverse economic scenario defined by the Finance Agency.

The Finance Agency has established four capital classifications for the FHLBanks - adequately capitalized, undercapitalized, significantly undercapitalized, and critically undercapitalized - and implemented the prompt corrective action provisions of HERA that apply to FHLBanks that are not deemed to be adequately capitalized. The Finance Agency determines our capital classification on at least a quarterly basis. If we are determined to be other than adequately capitalized, we would become subject to additional supervisory authority by the Finance Agency. Before implementing a reclassification, the Finance Agency Director would be required to provide us with written notice of the proposed action and an opportunity to respond. The Finance Agency's most recent determination is that we hold sufficient capital to be adequately capitalized and meet both our minimum capital and risk-based capital requirements. For more information, see *Notes to Financial Statements - Note 13 - Capital.*

Off-Balance Sheet Arrangements

The following table summarizes our off-balance-sheet arrangements (notional $ amounts in millions).

Types	December 31, 2019
Letters of credit outstanding	$ 449
Unused lines of credit [1]	1,012
Commitments to fund additional advances [2]	5
Commitments to fund or purchase mortgage loans, net [3]	71
Unsettled discount notes, at par	400

(1) Maximum line of credit amount for any member is $50,000.
(2) Generally for periods up to six months.
(3) Generally for periods up to 91 days.

A standby letter of credit is a financing arrangement between us and one of our members for which we charge a fee. If we are required to make payment on a beneficiary's draw, the payment amount is converted into a collateralized advance to the member. The original terms of these standby letters of credit, including related commitments, range from 3 months to 20 years. Lines of credit allow members to fund short-term cash needs (up to one year) without submitting a new application for each request for funds.

Our MPP was designed to require loan servicers to foreclose and liquidate in the servicer's name rather than in our name. As the servicer progresses through the process from foreclosure to liquidation, we are paid in full for all unpaid principal and accrued interest on the loan through the normal remittance process and the servicer files a claim against the various credit enhancements for reimbursement of losses incurred. The claim is then reviewed and paid as appropriate under the various credit enhancement policies or guidelines. Subsequently, the servicer may submit claims to us for any remaining losses. At December 31, 2019, principal previously paid in full by our MPP servicers totaling $1 million remains subject to potential claims by those servicers for any losses resulting from past or future liquidations of the underlying properties. An estimate of the losses is included in the MPP allowance for loan losses. For more information, see *Notes to Financial Statements - Note 1 - Summary of Significant Accounting Policies* and *Note 7 - Allowance for Credit Losses*. For more information on additional commitments and contingencies, see *Notes to Financial Statements - Note 18 - Commitments and Contingencies.*

Contractual Obligations

The following table presents the payments due or expiration terms by specified contractual obligation type ($ amounts in millions).

December 31, 2019	1 year or less	1 to 3 years	3 to 5 years	After 5 years	Total
Contractual obligations:					
Long-term debt [1]	$ 23,405	$ 10,902	$ 4,706	$ 5,650	$ 44,663
Operating leases	—	—	—	1	1
Benefit payments [2]	5	18	4	10	37
MRCS [3]	1	8	178	136	323
Total	$ 23,411	$ 10,928	$ 4,888	$ 5,797	$ 45,024

(1) Includes CO bonds reported at par and based on contractual maturities but excludes discount notes due to their short-term nature. For more information on consolidated obligations, see *Notes to Financial Statements - Note 11 - Consolidated Obligations*.

(2) Amounts represent actuarial estimates of future benefit payments in accordance with the provisions of our SERP. For more information, see *Notes to Financial Statements - Note 15 - Employee and Director Retirement and Deferred Compensation Plans*.

(3) For more information, see *Notes to Financial Statements - Note 13 - Capital.*

Critical Accounting Policies and Estimates

The preparation of financial statements in accordance with GAAP requires management to make a number of judgments, estimates, and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities (if applicable), and the reported amounts of income and expenses during the reporting period. We review these estimates and assumptions based on historical experience, changes in business conditions and other relevant factors that we believe to be reasonable under the circumstances. Changes in estimates and assumptions have the potential to significantly affect our financial position and results of operations. In any given reporting period, our actual results may differ from the estimates and assumptions used in preparing our financial statements.

We determined that two of our accounting policies and estimates are critical because they require management to make particularly difficult, subjective, and/or complex judgments about matters that are inherently uncertain and because of the likelihood that materially different amounts could be reported under different conditions or using different assumptions. These accounting policies pertain to:

- Derivatives and hedging activities (for more information, see *Notes to Financial Statements - Note 9 - Derivatives and Hedging Activities*); and
- Fair value estimates (for more information, see *Notes to Financial Statements - Note 17 - Estimated Fair Values*).

We believe the application of our accounting policies on a consistent basis enables us to provide financial statement users with useful, reliable and timely information about our results of operations, financial position and cash flows.

Accounting for Derivatives and Hedging Activities. All derivatives are recorded in the statement of condition at their estimated fair values. Changes in the estimated fair value of our derivatives are recorded in current period earnings regardless of how changes in the estimated fair value of assets or liabilities being hedged may be treated. Therefore, even though derivatives are used to mitigate market risk, derivatives introduce the potential for earnings volatility. Specifically, a mismatch can exist between the timing of income and expense recognition from assets or liabilities and the income effects of derivative instruments positioned to mitigate the market risk associated with those assets or liabilities. Therefore, during periods of significant changes in interest rates and other market factors, our earnings may experience greater volatility.

The accounting guidance related to derivative accounting is complex and contains strict documentation requirements. The details of each designated hedging relationship must be formally documented at the inception of the arrangement, including the risk management objective, hedging strategy, hedged item, specific risk being hedged, the derivative instrument and how effectiveness is being assessed. In all cases involving a recognized asset, liability or firm commitment, the designated risk being hedged is the risk of changes in the fair value of the hedged item attributable to changes in the designated benchmark interest rate.

For hedging relationships that are designated as fair-value hedges and qualify for hedge accounting, the change in the fair value of the derivative is recorded in current period earnings, thereby providing some offset to the change in fair value of the hedged item attributable to the hedged risk. The difference in the change in fair value of the derivative and the change in the fair value of the hedged item represents "hedge ineffectiveness". If a fair value hedging relationship qualifies for the shortcut method of accounting, we can assume the change in the fair value of the derivative is perfectly offsetting the change in the fair value of the hedged item and, as a result, no ineffectiveness is recorded in earnings. To qualify for shortcut accounting treatment, a number of conditions must be met, including, but not limited to, the following:

- the notional amount of the interest-rate swap matches the principal amount of the interest-bearing financial instrument being hedged;
- the fair value of the interest-rate swap at the inception of the hedging relationship is zero;
- the formula for computing net settlements under the interest-rate swap is the same for each net settlement; and
- the interest-bearing financial instrument is not prepayable.

When applying the shortcut method, we document at hedge inception a quantitative method to assess hedge effectiveness if we would later determine that the use of the shortcut method was not or is no longer appropriate. By documenting a quantitative method at inception of the relationship, the risk associated with inappropriately applying the method is reduced as the quantitative method can be applied, if certain qualifying criteria are met, without having to dedesignate the hedge relationship as of the date it was determined the hedge no longer qualified for the shortcut method.

For those interest rate swaps, swaptions and caps that are in fair-value hedging relationships that are accounted for under the long-haul method of accounting, we use regression analysis to assess hedge effectiveness. Effectiveness testing is performed at the inception of each hedging relationship to determine whether the hedge is expected to be highly effective in offsetting the hedged risk, and at each month-end thereafter to ensure that the hedge relationship has been effective historically and is expected to be highly effective in the future. Hedging relationships accounted for under the shortcut method are not tested for hedge effectiveness.

A fair-value hedge relationship is considered highly effective only if certain specified criteria are met. If a hedge fails the effectiveness test at inception, we do not apply hedge accounting. If the hedge fails the effectiveness test during the life of the relationship, we discontinue hedge accounting prospectively. In that case, we continue to carry the derivative on the statement of condition at fair value, recognize the changes in fair value of that derivative in current earnings, cease adjusting the hedged item for changes in its fair value and amortize the cumulative basis adjustment on the hedged item into earnings over its remaining life. Unless and until the derivative is redesignated in a qualifying fair-value hedging relationship for accounting purposes, changes in its fair value are recorded in current earnings without an offsetting change in the fair value of the hedged item.

Generally, we endeavor to use derivatives that effectively hedge specific assets or liabilities and qualify for fair-value hedge accounting. Although substantially all of our derivatives qualify for fair-value hedge accounting, we treat all derivatives that do not qualify for fair-value hedge accounting as economic hedges for asset/liability management purposes. The changes in the estimated fair value of these economic hedges are recorded in other income as net gains (losses) on derivatives and hedging activities with no offsetting fair-value adjustments for the hedged assets, liabilities, or firm commitments.

The fair values of our interest-rate related derivatives and hedged items are determined using standard valuation techniques such as discounted cash-flow analysis, which utilizes market estimates of interest rates and volatility, and comparisons to similar instruments. As such, the use of these estimates can have a significant impact on current period earnings. Although changes in estimated fair value can cause earnings volatility during the periods the derivative instruments are held, for hedges that qualify for fair-value hedge accounting, such changes do not have any net long-term economic effect or result in any net cash flows if the derivative and the hedged item are held to maturity. Since these estimated fair values eventually return to zero (or par value) on the maturity date, the effect of such fluctuations throughout the life of the hedging relationship is usually only a timing issue.

As of December 31, 2019, the Bank's derivatives portfolio included $40.9 billion (notional amount) that was accounted for using the long-haul method, $506 million (notional amount) that was accounted for using the shortcut method, and $9.0 billion (notional amount) that did not qualify for hedge accounting. By comparison, at December 31, 2018, the Bank's derivatives portfolio included $36.0 billion (notional amount) that was accounted for using the long-haul method, $80 million (notional amount) that was accounted for using the shortcut method, and $1.7 billion (notional amount) that did not qualify for hedge accounting.

Fair Value Estimates. We report certain assets and liabilities on the statement of condition at estimated fair value, including investments classified as trading, AFS, grantor trust assets, and all derivatives. "Fair value" is defined 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). We are required to consider factors specific to the asset or liability, the principal or most advantageous market for the asset or liability, and the participants with whom we would transact in that market. In general, the transaction price will equal the exit price and, therefore, represents the fair value of the asset or liability at initial recognition.

Estimated fair values are based on quoted market prices or market-based prices, if such prices are available. If quoted market prices or market-based prices are not available, estimated fair values are determined based on valuation models that use either:

- discounted cash flows, using market estimates of interest rates and volatility; or
- dealer prices on similar instruments.

For external pricing models, we review the vendors' pricing processes, methodologies, and control procedures for reasonableness. For internal pricing models, the underlying assumptions are based on management's best estimates for:

- discount rates;
- prepayments;
- market volatility; and
- other factors.

The assumptions used in both external and internal pricing models could have a significant effect on the reported fair values of assets and liabilities, including the related income and expense. The use of different assumptions, as well as changes in market conditions, could result in materially different values. We continue to refine our valuation methodologies as markets and products develop and the pricing for certain products becomes more or less transparent.

We categorize our financial instruments reported at estimated fair value into a three-level hierarchy. The valuation hierarchy is based upon the transparency (observable or unobservable) of inputs to the valuation of an asset or liability as of the measurement date. Observable inputs reflect market data obtained from independent sources, while unobservable inputs reflect our market assumptions. Level 1 instruments are those for which inputs to the valuation methodology are observable and are derived from quoted prices (unadjusted) for identical assets or liabilities in active markets that we can access on the measurement date. Level 2 instruments are those for which inputs are observable, either directly or indirectly, and include quoted prices for similar assets and liabilities. Finally, level 3 instruments are those for which inputs are unobservable or are unable to be corroborated by external market data.

Recent Accounting and Regulatory Developments

Accounting Developments. For a description of how recent accounting developments may impact our financial condition, results of operations or cash flows, see *Notes to Financial Statements - Note 2 - Recently Adopted and Issued Accounting Guidance*.

Legislative and Regulatory Developments.

Final Rules.

Finance Agency Final Rule on FHLBank Capital Requirements. On February 20, 2019, the Finance Agency published a final rule that adopts, with amendments, Finance Board regulations pertaining to the capital requirements for the FHLBanks. The final rule became effective January 1, 2020 and carries over most of the prior Finance Board regulations without material change, but substantively revises the credit risk component of the risk-based capital requirement, as well as the limitations on extensions of unsecured credit. The main revisions remove requirements that we calculate credit risk capital charges and unsecured credit limits based on ratings issued by an NRSRO, and instead require that we establish and use our own internal rating methodology. The final rule also imposes a new credit risk capital charge for cleared derivatives. In addition, the final rule revises the percentages used (in the regulation's tables) to calculate credit risk capital charges for advances and for non-mortgage assets. The final rule also rescinds certain contingency liquidity requirements that were part of the Finance Board regulations, because these requirements are now addressed in Finance Agency Advisory Bulletin 2018-07, "Federal Home Loan Bank Liquidity Guidance."

We do not expect this rule to have a material adverse effect on our financial condition or results of operations.

Proposed Rules.

Finance Agency Proposed Amendments to Stress Test Rule. On December 16, 2019, the Finance Agency published proposed amendments to its stress testing rule, consistent with section 401 of the Economic Growth, Regulatory Relief, and Consumer Protection Act of 2018 ("EGRRCPA"). The amendments would: (i) raise the minimum threshold for the requirement to conduct periodic stress tests for entities regulated by the Finance Agency from those with consolidated assets of more than $10 billion to those with consolidated assets of more than $250 billion; (ii) generally remove the requirements for FHLBanks to conduct stress tests; and (iii) remove the adverse scenario from the list of required scenarios. However, under the proposed amendments, the Finance Agency Director would retain authority and discretion to impose stress testing requirements on any FHLBank with assets below the $250 billion threshold. The proposed amendments would align the Finance Agency's stress testing rules with rules adopted by other financial institution regulators pursuant to the Dodd-Frank Act stress testing requirements, as amended by the EGRRCPA.

The results of our most recent annual stress test were published on our public website, www.fhlbi.com, on November 15, 2019. If the amendments are adopted as proposed, we will no longer be subject to these stress testing requirements subject to the Finance Agency's ongoing discretion.

FDIC Brokered Deposits Restrictions. The Federal Deposit Insurance Act, as implemented by FDIC regulations, prohibits any insured depository institution that is not "well capitalized" from accepting any deposit obtained, directly or indirectly, by or through any "deposit broker," though "adequately capitalized" institutions may request a waiver from this prohibition. On December 12, 2019, the FDIC issued a proposed rule to amend the brokered deposits restrictions that apply to less-than-well-capitalized insured depositories. The proposed amendments are intended to modernize brokered deposit regulations in light of significant changes in technology, business models, the economic environment, and products since the regulations were first adopted, and would establish a new framework for analyzing whether deposits placed through deposit placement arrangements qualify as brokered deposits. These arrangements include those between insured depositories and third parties, such as financial technology companies, for a variety of business purposes, including access to deposits. By creating a new framework for analyzing certain provisions of the "deposit broker" definition, including reducing the list of activities considered "facilitating" and expanding the scope of the "primary purpose" exception, the proposed rule would narrow the definition of "deposit broker" and thereby exclude more deposits from treatment as brokered deposits.

If these amendments are adopted as proposed, they may reduce member demand for advances, but at this time we cannot predict the extent of the impact on our advances.

Joint Proposed Rule on Margin and Capital Requirements for Agency-Covered Swap Entities. On November 7, 2019, the OCC, the FRB, the FDIC, the Farm Credit Administration and the Finance Agency (collectively, the "Agencies") jointly published a proposed rule that would amend the Agencies' regulations governing minimum margin and capital requirements for uncleared swaps ("Prudential Margin Rules") for covered swap entities under the jurisdiction of one of the Agencies ("Agency-covered swap entities"). The proposed amendments, among other things, would permit uncleared swaps entered into by Agency-covered swap entities before the compliance date of the Prudential Margin Rules ("Agency-legacy swaps") to retain legacy status and not become subject to the Prudential Margin Rules in the event that they are amended to replace LIBOR or another rate that is reasonably expected to be discontinued or is reasonably determined to have lost its relevance as a reliable benchmark due to a significant impairment. The proposed rule would also amend the Prudential Margin Rules to: (i) extend the phase-in compliance date for initial margin requirements from September 1, 2020 to September 1, 2021 for Agency-covered swap entity counterparties with an average daily aggregate notional amount of non-cleared swaps from $8 billion to $50 billion; (ii) clarify that an Agency-covered swap entity is not required to execute an initial margin trading agreement with a counterparty before the counterparty is required to collect or post initial margin; and (iii) permit Agency-legacy swaps to retain their legacy status and not become subject to the Prudential Margin Rules in the event that such swaps are amended due to certain life-cycle activities, such as reductions of notional amounts or portfolio compression exercises.

As an Agency-covered swap entity, we do not expect this rule, if adopted as proposed, to have a material adverse effect on our financial condition or results of operations.

Advisory Bulletins.

Advisory Bulletin (2020-01) - Risk Management of AMA. On January 31, 2020, the Finance Agency issued Advisory Bulletin 2020-01 relating to the FHLBanks' management of AMA risk. This advisory bulletin communicates the Finance Agency's expectations with respect to an FHLBank's funding of its members through the purchase of eligible mortgage loans and includes expectations that an FHLBank will have board-established limits on AMA portfolios and management-established thresholds to serve as monitoring tools to manage AMA-related risk exposure. The advisory bulletin indicates that the board of directors of an FHLBank should ensure that the FHLBank's AMA portfolio limits do not result in the bank's acquisition of mortgage loans from smaller members being "crowded out" by its acquisition of mortgage loans from larger members. The bulletin also indicates that the board of directors should set limits on the size and growth of AMA portfolios and on acquisitions from a single PFI. In addition, the board of directors should consider concentration risk with respect to geographic area, high-balance loans, and third-party loan originations as it establishes limits on the FHLBank's AMA portfolio. The FHLBanks should be able to demonstrate their progress toward adherence to this advisory bulletin by September 30, 2020 and should have their final limits in place by December 31, 2020.

Our MPP portfolio is a key component of our business strategy and our core mission assets, making up approximately 25% of our core mission assets as of December 31, 2019. Through MPP Advantage, we acquire mortgage loans on properties in multiple jurisdictions and geographic areas from member institutions of varying sizes. We maintain limits on the size and growth of our MPP portfolio, and we monitor and limit concentration risks in the portfolio, such as purchases from a single PFI. We continue to evaluate the potential impact of this advisory bulletin on our financial condition and results of operations.

Advisory Bulletin 2019-03 - Capital Stock Management. On August 14, 2019, the Finance Agency issued Advisory Bulletin 2019-03 to provide guidance that augments existing statutory and regulatory capital requirements. The advisory bulletin requires each FHLBank to maintain a ratio of at least two percent of capital stock to total assets in order to help preserve the cooperative structure incentives that encourage members to remain fully engaged in the oversight of their investment in the FHLBank. The advisory bulletin indicates that, beginning in February 2020, the Finance Agency will consider the proportion of capital stock to assets, measured on a daily average basis at month-end, when assessing each FHLBank's capital management practices.

We do not expect this advisory bulletin to have a material adverse effect on our capital management practices, financial condition, or results of operations.

Finance Agency Advisory Bulletin 2019-01 - Business Resiliency Management. On May 7, 2019, the Finance Agency issued Advisory Bulletin 2019-01 on Business Resiliency Management for FHLBanks and other entities regulated by the Finance Agency that communicates the Finance Agency's expectations with respect to minimizing the impact of disruptions in service from uncontrolled events and the maintenance of business operations at predefined levels. This advisory bulletin indicates that a business resiliency program should guide the regulated entity's appropriate responses to disruptions affecting business operations, personnel, equipment, facilities, IT systems, and information assets. In addition, the bulletin provides guidance on the elements of a safe and sound business resiliency program, which include governance, risk assessment and business impact analysis, risk mitigation and plan development, testing and analysis, and risk monitoring and program sustainability. This advisory bulletin rescinds Finance Board Advisory Bulletin 2002-03 on disaster recovery planning.

We do not expect this advisory bulletin to have a material adverse effect on our financial condition or results of operations.

Other Developments.

Brexit. On January 31, 2020, the United Kingdom ("UK") withdrew from the European Union ("EU") (the action commonly referred to as "Brexit"). During the ensuing transition period, the UK and the EU will negotiate the details of their future relationship, including the conditions that will apply to EU-based entities that want to do business with the UK, and vice versa, after the transition period.

From time to time we may have exposure to UK-based and EU-based counterparties, and we have a UK-based derivatives clearing organization for our cleared derivatives. At this time it is not possible to predict the date on which the transition period will end or whether any agreement reached between the UK and the EU will have a material adverse effect on the financial instruments we have with these counterparties or on our derivatives cleared in the UK.

CFTC No-action Relief for Amendments Relating to Interbank Offered Rates. On December 17, 2019, the CFTC issued no-action letters to provide relief with respect to the transition away from LIBOR and other interbank offered rates (collectively, "IBORs"). Among other forms of relief, the letters, subject to certain limitations:

(i) permit registered swap dealers, major swap participants, security-based swap participants, and major security-based swap participants to amend "legacy" uncleared swaps (entered into before the compliance date of the CFTC's uncleared swap margin requirements ("CFTC margin rules")) to include LIBOR or other IBOR fallbacks without the legacy swap becoming subject to the CFTC margin rules; and

(ii) provide time-limited relief, until December 31, 2021, for (a) swaps that are not subject to the central clearing requirement because they were executed prior to the relevant compliance date and (b) swaps that are subject to the trade execution requirement to be amended to include LIBOR or other IBOR fallbacks without becoming subject to such clearing or trade execution requirements.

As a major swap participant, we do not expect these no-action letters to have a material effect on our financial condition or results of operations.

Finance Agency Supervisory Letter - Planning for LIBOR Phase-Out. On September 27, 2019, the Finance Agency issued a Supervisory Letter ("Supervisory Letter") to the FHLBanks, designed to ensure the FHLBanks will be able to identify and prudently manage the risks associated with the termination of LIBOR in a safe and sound manner. The Supervisory Letter provides that the FHLBanks should, by December 31, 2019, stop purchasing investments that reference LIBOR and mature after December 31, 2021. In addition, the FHLBanks should, by March 31, 2020, cease entering into new LIBOR-referenced financial assets, liabilities, and derivatives with maturities beyond December 31, 2021 for all product types, subject to limited exceptions granted by the Finance Agency for LIBOR-linked products that serve compelling mission, risk mitigating, or hedging purposes that do not currently have readily available alternatives.

These phase-out dates do not apply to collateral accepted by the FHLBanks. However, the Supervisory Letter directs the FHLBanks to update their pledged collateral certification reporting requirements by March 31, 2020 to encourage members to distinguish LIBOR-linked collateral maturing after December 31, 2021.

In accordance with the Supervisory Letter, we have ceased purchasing investments that reference LIBOR and mature after December 31, 2021. We have also suspended the issuance of LIBOR-indexed debt with maturities beyond 2021. However, until March 31, 2020, we will continue to issue fixed-rate debt with maturities beyond 2021 that are hedged with LIBOR-indexed interest-rate swaps. Beginning March 31, 2020, we will no longer enter into derivatives with swaps, caps, or floors indexed to LIBOR that terminate after December 31, 2021. Further, beginning March 31, 2020, we expect to suspend transactions in certain structured advances and advances with terms directly linked to LIBOR that mature after December 31, 2021. We are also revising our members' collateral reporting requirements to distinguish LIBOR-linked collateral that matures after December 31, 2021.

We continue to evaluate the potential impact of the Supervisory Letter on our financial condition and results of operations.

CFTC Staff Advisory on Initial Margin Documentation Requirements. On July 9, 2019, the CFTC issued a staff advisory ("Advisory") on Margin Requirements for Uncleared Swaps for Swap Dealers and Major Swap Participants ("Margin Rules"), to clarify that documentation governing the posting, collection, and custody of initial margin is not required to be completed until such time as the aggregate unmargined exposure to a counterparty (and its margin affiliates) exceeds a threshold of $50 million. Under the Margin Rules, covered swap entities and non-prudentially regulated swap dealers generally are required to post and collect initial margin with counterparties that are swap dealers or financial end users with material swap exposure. The Margin Rules, however, contain an initial margin threshold amount of $50 million between a covered swap entity (and its margin affiliates) on the one hand, and its counterparty (and its margin affiliates), on the other hand.

The Advisory clarifies that no initial margin documentation is required until the amount of initial margin exchangeable between a covered swap entity (and its margin affiliates) and its counterparty (and its margin affiliates) exceeds that initial margin threshold amount. The Advisory does, however, instruct covered swap entities to closely monitor initial margin amounts if they are approaching the $50 million threshold with a counterparty and to take appropriate steps to ensure that required documentation is in place at such time as the threshold is reached. The Advisory confirms the September 1, 2020 compliance deadline for us under the Margin Rules.

We continue to monitor developments relating to the Margin Rules and our bilateral derivatives balances.

Risk Management

We have exposure to a number of risks in pursuing our business objectives. These risks may be broadly classified as market, credit, liquidity, operational, and business. Market risk is discussed in *Item 7A. Quantitative and Qualitative Disclosures about Market Risk*.

Active risk management is an integral part of our operations because these risks are an inherent part of our business activities. We manage these risks by, among other actions, setting and enforcing appropriate limits and developing and maintaining internal policies and processes to ensure an appropriate risk profile. In order to enhance our ability to manage Bank-wide risk, our risk management function is structured to segregate risk measurement, monitoring, and evaluation from our business units where risk-taking occurs through financial transactions and positions.

The Finance Agency has established certain risk-related compliance requirements. In addition, our board of directors has established a Risk Appetite Statement that summarizes the amounts, levels and types of enterprise-wide risk that our management is authorized to undertake in pursuit of achieving our mission and executing our strategic plans. The Risk Appetite Statement incorporates high level qualitative and quantitative risk limits and tolerances from our Enterprise Risk Management Policy, which serves as a key policy to address our exposures to market, credit, liquidity, operational and business risks, and from various other key risk-related policies approved by our board of directors, including the Operational Risk Management Policy, the Model Risk Management Policy, the Credit Policy, the Capital Markets Policy, and the Enterprise Information Security Policy.

Effective risk management programs include not only conformance of specific risk management practices to the Enterprise Risk Management Policy and other key risk-related policy requirements, but also the active involvement of our board of directors. Our board of directors has established a Risk Oversight Committee that provides focus, direction and accountability for our risk management process. Further, pursuant to the Enterprise Risk Management Policy, the following internal management committees focus on risk management, among other duties:

- Executive Management Committee
    - Facilitates planning, coordination and communication among our operating divisions and the other committees;
    - Focuses on leadership, teamwork and our resources to best serve organizational priorities; and
    - Generally oversees the following committees' activities.
        - Member Services Committee
            - Focuses on new and existing member services and products and oversees the effectiveness of the risk mitigation framework for member services and products; and
            - Promotes cross-functional communication and exchange of ideas pertaining to member products offered to achieve financial objectives established by the board of directors and senior management while remaining within prescribed risk parameters.
        - Capital Markets Committee
            - Focuses on the Bank's investment and funding activities as they relate to financial performance, risk profile and the Bank's strategic direction; and
            - Deliberates proposed strategies to meet funding needs and achieve financial performance objectives established by the board of directors and senior management, while remaining within established risk control parameters.
        - IT Steering Committee
            - Monitors our technology-related activities, strategies, risk positions and issues; and
            - Promotes cross-functional communication and exchange of ideas pertaining to the technology directions and actions undertaken to achieve our strategic and financial objectives.

- Strategy Risk Management Committee
    - Provides strategic direction in the management of key risk exposures and risk policies, and adjudicates strategic risk issues as they arise (credit, market, liquidity, advance lending, AMA, investment portfolio, treasury, operations, regulatory and reputation); and
    - Identifies and evaluates current and emerging risks and opportunities - makes course corrections as circumstances and events dictate.
    - Oversees the actions of the following committees.
        - Risk Committee
            - Oversees the identification, monitoring, measurement, evaluation and reporting of risks; and
            - Promotes cross-functional communication and exchange of ideas pertaining to oversight of our risk profile in accordance with guidelines and objectives established by our board of directors and senior management.
        - Information Security Steering Committee
            - Oversees the Bank's Information Security Program, which includes enterprise information security, cybersecurity, and physical security.
- Asset Liability Committee
    - Evaluates the impact of macro-economic, interest rate and financial market conditions on the Bank's financial performance and capital levels; and
    - Determines enterprise-level asset-liability management strategies.

Each of the committees is responsible for overseeing its respective business activities in accordance with specified policies, in addition to ongoing consideration of pertinent risk-related issues.

We have a formal process for the assessment of Bank-wide risk and risk-related issues. Our risk assessment process is designed to identify and evaluate material risks, including both quantitative and qualitative aspects, which could adversely affect achievement of our financial performance objectives and compliance with applicable requirements. Business unit managers play a significant role in this process, as they are best positioned to identify and understand the risks inherent in their respective operations. These assessments evaluate the inherent risks within each of the key processes as well as the controls and strategies in place to manage those risks, identify primary weaknesses, and recommend actions that should be undertaken to address the identified weaknesses. The results of these assessments are summarized in an annual risk assessment report, which is reviewed by senior management and our board of directors.

Credit Risk Management. Credit risk is the risk that members or other counterparties may be unable to meet their contractual obligations to us, or that the values of those obligations will decline as a result of deterioration in the members' or other counterparties' creditworthiness. Credit risk arises when our funds are extended, committed, invested or otherwise exposed through actual or implied contractual agreements. We face credit risk on advances and other credit products, investments, mortgage loans, derivative financial instruments, and AHP grants.

The most important step in the management of credit risk is the initial decision to extend credit. We also manage credit risk by following established policies, evaluating the creditworthiness of our members and counterparties, and utilizing collateral agreements and settlement netting. Periodic monitoring of members and other counterparties is performed whenever we are exposed to credit risk.

Advances and Other Credit Products. We manage our exposure to credit risk on advances primarily through a combination of our security interests in assets pledged by our borrowers and ongoing reviews of our borrowers' financial strength. Credit analyses are performed on existing borrowers, with the frequency and scope determined by the financial strength of the borrower and/or the amount of our credit products outstanding to that borrower. We establish limits and other requirements for advances and other credit products.

Section 10(a) of the Bank Act prohibits us from making an advance without sufficient collateral to fully secure the advance. Security is provided via thorough underwriting and establishing a perfected position in eligible assets pledged by the borrower as collateral before an advance is made by filing Uniform Commercial Code financing statements in the appropriate jurisdictions. Each member's collateral reporting requirement is based on its collateral status, which reflects its financial condition and type of institution, and our review of conflicting liens, with our level of control increasing when a borrower's financial performance deteriorates. We continually evaluate the quality and value of collateral pledged to support advances and work with members to improve the accuracy of valuations.

For both December 31, 2019 and 2018, advances to our insurance company members represented 47% of our total advances, at par. We believe that advances outstanding to our insurance company members and the relative percentage of their advances to the total could increase, based upon the significant portion of total financial assets held by insurance companies in our district. Although insurance companies represent growth opportunities for our credit products, they have different risk characteristics than our depository members. Some of the ways we mitigate this risk include requiring insurance companies to deliver collateral to us or our custodian and using industry-specific underwriting approaches as part of our ongoing evaluation of our insurance company members' financial strength.

A captive insurance company insures risks of its parent, affiliated companies and/or other entities under common control. We generally require captive insurance company members to, among other requirements: (i) pledge the collateral free of other encumbrances, (ii) collateralize all obligations to us, including prepayment fees, accrued interest and any outstanding AHP or MPP obligations, (iii) obtain our prior approval before pledging whole loan collateral, and (iv) provide annual audit reports of the member entity and its ultimate parent, as well as quarterly unaudited financial statements.

Borrowing Limits. Generally, we maintain a credit products borrowing limit of 50% of a depository member's adjusted assets, defined as total assets less borrowings from all sources. As of December 31, 2019, we had no advances outstanding to a depository member whose total credit products exceeded 50% of its adjusted assets.

The initial borrowing limit for our insurance company members (excluding captive insurance companies) is 25% of their total general account assets less money borrowed. Credit extensions to insurance company members whose total credit products exceed this threshold require an additional approval by our Bank as provided in our credit policy. The approval is based upon a number of factors that may include the member's financial condition, collateral quality, business plan and earnings stability. We also monitor these members more closely on an ongoing basis. As of December 31, 2019, we had no advances outstanding to an insurance company member whose total credit products exceeded 25% of their general account assets, net of money borrowed.

New or renewed credit extensions to captive insurance companies that became members prior to September 12, 2014 are subject to certain regulatory restrictions relating to maturity dates and cannot exceed 40% of the member's total assets. As of December 31, 2019, one such captive insurance company member's total outstanding balance of credit products exceeded the percentage limit. Therefore, no new or renewed credit extensions have been provided to this member. We may impose additional restrictions on extensions of credit to our members, including captive insurance companies, at our discretion.

Concentration. Our credit risk is magnified due to the concentration of advances in a few borrowers. As of December 31, 2019, our top borrower held 13% of total advances outstanding, at par, and our top five borrowers held 42% of total advances outstanding, at par. As a result of this concentration, we perform frequent credit and collateral reviews on our largest borrowers. In addition, we analyze the implications to our financial management and profitability if we were to lose the business of one or more of these borrowers.

Collateral Requirements. We generally require all borrowers to execute a security agreement that grants us a blanket lien on substantially all assets of the member. Our agreements with borrowers require each borrowing entity to fully secure all outstanding extensions of credit at all times, including advances, accrued interest receivable, standby letters of credit, correspondent services, certain AHP transactions, and all indebtedness, liabilities or obligations arising or incurred as a result of a member transacting business with our Bank. We may also require a member to pledge additional collateral to cover exposure resulting from any applicable prepayment fees on advances.

The assets that constitute eligible collateral to secure extensions of credit are set forth in Section 10(a) of the Bank Act. In accordance with the Bank Act, we accept the following assets as collateral:

- fully disbursed, whole first mortgages on improved residential property, or securities representing a whole interest in such mortgages;
- securities issued, insured, or guaranteed by the United States government or any Agency thereof (including, without limitation, MBS issued or guaranteed by Fannie Mae, Freddie Mac, or Ginnie Mae);
- cash or deposits in an FHLBank; and
- ORERC acceptable to us if such collateral has a readily ascertainable value and we can perfect our interest in the collateral.

Additionally, for any CFI, as defined in accordance with the Bank Act, we may also accept secured loans for small business, agricultural and community development activities.

In addition to our internal credit risk management policies and procedures, Section 10(e) of the Bank Act affords priority of any security interest granted to us, by a member or such member's affiliate, over the claims or rights of any other party, including any receiver, conservator, trustee, or similar entity that has the rights of a lien creditor, except for claims held by bona fide purchasers for value or by parties that are secured by prior perfected security interests, provided that such claims would otherwise be entitled to priority under applicable law. Moreover, with respect to federally-insured depository institution borrowers, our claims are given certain preferences pursuant to the receivership provisions of the Federal Deposit Insurance Act. With respect to insurance company members, however, Congress provided in the McCarran-Ferguson Act of 1945 that state law generally governs the regulation of insurance and shall not be preempted by federal law unless the federal law expressly regulates the business of insurance. Thus, if a court were to determine that the priority provision of Section 10(e) of the Bank Act conflicts with state insurance law applicable to our insurance company members, the court might then determine that the priority of our security interest would be governed by state law, not Section 10(e). Under these circumstances, the "super lien" priority protection afforded to our security interest under Section 10(e) may not fully apply when we lend to such insurance company members. However, we monitor applicable states' laws, and our security interests in collateral posted by insurance company members have express statutory protections in the jurisdictions where our members are domiciled. In addition, we take all necessary action under applicable state law to obtain and maintain a prior perfected security interest in the collateral, including by taking possession or control of the collateral as appropriate.

Collateral Status. When an institution becomes a member of our Bank, we assign the member to a collateral status after the initial underwriting review. The assignment of a member to a collateral status category reflects, in part, our philosophy of increasing our level of control over the collateral pledged by the member, when warranted, based on our underwriting conclusions and a review of our lien priority. Some members pledge and report collateral under a blanket lien established through the security agreement, while others are placed on specific listings or possession status or a combination of the three via a hybrid status. We take possession of all collateral posted by insurance companies to further ensure our position as a first-priority secured creditor. A depository institution member may elect a more restrictive collateral status to receive a higher lendable value for their collateral.

The primary features of these three collateral status categories are:

Blanket:

- only certain financially sound depository institutions are eligible;
- institutions that have granted a blanket lien to another creditor may be eligible if an inter-creditor or subordination agreement is executed;
- review and approval by credit services management is required;
- member retains possession of eligible whole loan collateral pledged to us;
- member executes a written security agreement and agrees to hold such collateral for our benefit; and
- member provides periodic reports of all eligible collateral.

Specific Listings:

- applicable to depository institutions that demonstrate potential weakness in their financial condition or seek lower over-collateralization requirements;
- may be available to institutions that have granted a blanket lien to another creditor if an inter-creditor or subordination agreement is executed;
- member retains possession of eligible whole loan collateral pledged to us;
- member executes a written security agreement and agrees to hold such collateral for our benefit; and
- member provides loan level detail on the pledged collateral on at least a monthly basis.

Possession:

- applicable to all insurance companies, non-depository CDFI's, Housing Associates, and those depository institutions demonstrating less financial strength than those approved for specific listings;
- required for all de novo institutions and institutions that have granted a blanket lien to another creditor but have not executed an inter-creditor or subordination agreement;
- safekeeping for securities pledged as collateral can be with us or a third-party custodian that we have pre-approved;
- original notes and other documents related to whole loans pledged as collateral are held with a third-party custodian that we have pre-approved; and
- member provides loan level detail on the pledged collateral on at least a monthly basis.

Collateral Valuation. In order to mitigate the market, credit, liquidity, operational and business risk associated with collateral, we apply an over-collateralization requirement to the book value or market value of pledged collateral to establish its lendable value. Collateral that we have determined to contain a low level of risk, such as United States government obligations, is over-collateralized at a lower rate than collateral that carries a higher level of risk, such as small business loans. The over-collateralization requirement applied to asset classes may vary depending on collateral status, because lower requirements are applied as our levels of information and control over the assets increase.

We have made changes to, and continue to update, our internal valuation model to gain greater consistency between model-generated valuations and observed market prices, resulting in adjustments to lendable values on whole loan collateral. We routinely engage outside pricing vendors to benchmark our modeled pricing on residential and commercial real estate collateral, and we modify valuations where appropriate.

The following table provides information regarding credit products outstanding with borrowers based on their reporting status at December 31, 2019, along with their corresponding collateral balances. The table only lists collateral that was identified and pledged by borrowers with outstanding credit products at December 31, 2019, and therefore does not include all assets against which we have liens via our security agreements and Uniform Commercial Code filings ($ amounts in millions).

		Collateral Types					
Collateral Status	# of Borrowers	1st lien Residential	ORERC/ CFI	Securities/ Delivery	Total Collateral	Lendable Value [(1)]	Credit Outstanding [(2)]
Blanket	64	$ 6,878	$ 3,556	$ —	$ 10,434	$ 6,668	$ 2,617
Specific listings	76	22,458	4,073	1,387	27,918	21,248	9,366
Possession	28	5,981	12,581	8,276	26,838	19,589	15,411
Hybrid [(3)]	30	9,363	3,388	2,027	14,778	10,327	5,327
Total	198	$ 44,680	$ 23,598	$ 11,690	$ 79,968	$ 57,832	$ 32,721

(1) Lendable Value is the borrowing capacity, based upon collateral pledged after a market value has been estimated (excluding blanket-pledged collateral) and an over-collateralization requirement has been applied.

(2) Credit outstanding includes advances (at par value), lines of credit used, and letters of credit.

(3) Hybrid collateral status is a combination of any of the others: blanket, specific listings and possession.

Collateral Review and Monitoring. Our agreements with borrowers allow us, at any time and in our sole discretion, to require substitution of collateral, adjust the over-collateralization requirements applied to collateral, or refuse to make extensions of credit against any collateral. We also may require borrowers to pledge additional collateral regardless of whether the collateral would be eligible to originate a new extension of credit. Our agreements with our borrowers also afford us the right, in our sole discretion, to declare any borrower to be in default if we deem our Bank to be inadequately secured.

Credit services management continually monitors members' collateral status and may require a member to change its collateral status based upon deteriorating financial performance, results of on-site collateral reviews, or a high level of borrowings as a percentage of its assets. The blanket lien created by the security agreement remains in place regardless of a member's collateral status.

The Bank conducts regular on-site reviews of collateral pledged by members to confirm the existence of the pledged collateral, confirm that the collateral conforms to our eligibility requirements, and score the collateral for concentration and credit risk. Based on the results of such on-site reviews, a member may have its over-collateralization requirements adjusted, limitations may be placed on the amount of certain asset types accepted as collateral or, in some cases, the member may be changed to a more stringent collateral status. We may conduct a review of any borrower's collateral at any time.

Credit Review and Monitoring. We monitor the financial condition of all member and non-member borrowers by reviewing certain available financial data, such as regulatory call reports filed by depository institution borrowers, regulatory financial statements filed with the appropriate state insurance department by insurance company borrowers, SEC filings, and rating agency reports, to ensure that potentially troubled institutions are identified as soon as possible. In addition, we have the ability to obtain borrowers' regulatory examination reports and, when appropriate, may contact borrowers' management teams to discuss performance and business strategies. We analyze this information on a regular basis and use it to determine the appropriate collateral status for a borrower.

We use models to assign a quarterly financial performance measure for all depository institution borrowers. This measure, combined with other credit monitoring tools and the level of a member's usage of credit products, determines the frequency and depth of underwriting analysis for these institutions.

Investments. We are also exposed to credit risk through our investment portfolio. Our policies restrict the acquisition of investments to high-quality, short-term money market instruments and high-quality long-term securities.

Short-Term Investments. Our short-term investments typically include securities purchased under agreements to resell, which are secured by United States Treasuries or Agency MBS passthroughs. Although we are permitted to purchase these securities for terms of up to 275 days, most mature overnight. Our short-term investments can also include federal funds sold, which can be overnight or term placements of our funds. We place these funds with large, high-quality financial institutions with investment-grade long-term credit ratings on an unsecured basis for terms of up to 275 days. Our short-term investments also include interest-bearing demand deposit accounts which are commercial deposit accounts generally opened with large, high-quality domestic financial institutions. The funds within these accounts are available for withdrawal at any time during business hours.

We monitor counterparty creditworthiness, ratings, performance, and capital adequacy in an effort to mitigate unsecured credit risk on the short-term investments, with an emphasis on the potential impacts of changes in global economic conditions. As a result, we may limit or suspend exposure to certain counterparties.

Finance Agency regulations include limits on the amount of unsecured credit we may extend to a private counterparty or to a group of affiliated counterparties. As of December 31, 2019, this limit was based on a percentage of eligible regulatory capital and the counterparty's long-term NRSRO credit rating. Under those regulations, (i) the level of eligible regulatory capital is determined as the lesser of our total regulatory capital or the eligible amount of regulatory capital of the counterparty; (ii) the eligible amount of regulatory capital is then multiplied by a stated percentage; and (iii) the percentage that we may offer for term extensions of unsecured credit ranges from 1% to 15% based on the counterparty's NRSRO credit rating. The calculation of term extensions of unsecured credit includes on-balance sheet transactions, off-balance sheet commitments and derivative transactions.

The regulations were amended effective January 1, 2020 and now require, among other things, that we calculate credit risk capital charges and unsecured credit limits based on our own internal rating methodology, rather than on NRSRO ratings. For more information on these amendments, see *Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations - Recent Accounting and Regulatory Developments - Legislative and Regulatory Developments.*

The Finance Agency regulation also permits us to extend additional unsecured credit for overnight federal funds sold up to a total unsecured exposure to a single counterparty of 2% to 30% of the eligible amount of regulatory capital, based on the counterparty's credit rating.

Additionally, we are prohibited by Finance Agency regulation from investing in financial instruments issued by non-United States entities other than those issued by United States branches and agency offices of foreign commercial banks. Our unsecured credit exposures to United States branches and agency offices of foreign commercial banks include the risk that, as a result of political or economic conditions in a country, the counterparty may be unable to meet its contractual repayment obligations. During the year ended December 31, 2019, our unsecured investment credit exposure to United States branches and agency offices of foreign commercial banks was limited to federal funds sold. Our unsecured credit exposures to domestic counterparties and United States subsidiaries of foreign commercial banks include the risk that these counterparties have extended credit to foreign counterparties.

The following table presents the unsecured investment credit exposure to private counterparties, categorized by the domicile of the counterparty's ultimate parent, based on the lowest of the counterparty's NRSRO long-term credit ratings, stated in terms of the S&P equivalent. The table does not reflect the foreign sovereign government's credit rating ($ amounts in millions).

December 31, 2019	**AA**	**A**	**Total**
Domestic	$ —	$ 1,949	$ 1,949
Canada	—	320	320
Australia	1,090	—	1,090
Total unsecured credit exposure	$ 1,090	$ 2,269	$ 3,359

Trading Securities. Our liquidity portfolio includes U.S. Treasury securities, which are direct obligations of the U.S. government and are classified as trading securities.

Other Investment Securities. Our long-term investments include MBS guaranteed by the housing GSEs (Fannie Mae and Freddie Mac), other U.S. obligations - guaranteed MBS (Ginnie Mae), and debentures issued by Fannie Mae, Freddie Mac, the TVA and the Federal Farm Credit Banks.

A Finance Agency regulation provides that the total amount of our investments in MBS and ABS, calculated using amortized historical cost, must not exceed 300% of our total regulatory capital, as of the day we purchase the securities, based on the capital amount most recently reported to the Finance Agency. At December 31, 2019, these investments totaled 281% of total regulatory capital. Generally, our goal is to maintain these investments near the 300% limit in order to enhance earnings and capital for our members and diversify our revenue stream.

The following table presents the carrying values of our investments, excluding accrued interest, grouped by credit rating and investment category. Applicable rating levels are determined using the lowest relevant long-term rating from S&P, Moody's and Fitch Ratings, Inc., each stated in terms of the S&P equivalent. Rating modifiers are ignored when determining the applicable rating level for a given counterparty or investment. Amounts reported do not reflect any subsequent changes in ratings, outlook, or watch status ($ amounts in millions).

December 31, 2019	**AAA**	**AA**	**A**	**BBB**	**Below Investment Grade**	**Total**
Short-term investments:						
Interest-bearing deposits	$ —	$ —	$ 809	$ —	$ —	$ 809
Securities purchased under agreements to resell	—	1,500	—	—	—	1,500
Federal funds sold	—	1,090	1,460	—	—	2,550
Total short-term investments	—	2,590	2,269	—	—	4,859
Trading securities:						
U.S. Treasury obligations	—	5,017	—	—	—	5,017
Total trading securities	—	5,017	—	—	—	5,017
Other investment securities:						
GSE and TVA debentures	—	3,927	—	—	—	3,927
GSE MBS	—	6,714	—	—	—	6,714
Other U.S. obligations - guaranteed RMBS	—	3,060	—	—	—	3,060
Total other investment securities	—	13,701	—	—	—	13,701
Total investments, carrying value	$ —	$ 21,308	$ 2,269	$ —	$ —	$ 23,577
Percentage of total	— %	90 %	10 %	— %	— %	100 %
December 31, 2018						
Short-term investments:						
Interest-bearing deposits	$ —	$ 1	$ 1,210	$ —	$ —	$ 1,211
Securities purchased under agreements to resell	—	3,213	—	—	—	3,213
Federal funds sold	—	1,630	1,455	—	—	3,085
Total short-term investments	—	4,844	2,665	—	—	7,509
Investment securities						
GSE and TVA debentures	—	4,277	—	—	—	4,277
GSE MBS	—	5,632	—	—	—	5,632
Other U.S. obligations - guaranteed RMBS	—	3,469	—	—	—	3,469
Total investment securities	—	13,378	—	—	—	13,378
Total investments, carrying value	$ —	$ 18,222	$ 2,665	$ —	$ —	$ 20,887
Percentage of total	— %	87 %	13 %	— %	— %	100 %

Mortgage Loans Held for Portfolio.

MPP. We are exposed to credit risk on the loans purchased from our PFIs through the MPP. Each loan we purchase must meet the guidelines for our MPP or be specifically approved as an exception based on compensating factors. For example, the maximum LTV ratio for any conventional mortgage loan purchased is 95%, and the borrowers must meet certain minimum credit scores depending upon the type of loan or property.

Credit Enhancements. Credit enhancements for conventional loans include (in order of priority):

- PMI (when applicable);
- LRA; and
- SMI (as applicable) purchased by the seller from a third-party provider naming us as the beneficiary.

PMI. For a conventional loan, PMI, if applicable, covers losses or exposure down to approximately an LTV ratio between 65% and 80% based upon the original appraisal, original LTV ratio, term, and amount of PMI coverage. As of December 31, 2019, we had PMI coverage on $1.8 billion or 18% of our conventional MPP mortgage loans, which included coverage of $0.7 million on seriously delinquent loans, i.e., 90 days or more past due or in the process of foreclosure, of $2.2 million.

LRA. We use either a "spread LRA" or a "fixed LRA" for credit enhancement. The spread LRA was used in combination with SMI for credit enhancement of conventional mortgage loans purchased under our original MPP, and the fixed LRA is used for credit enhancement of conventional mortgage loans purchased under Advantage MPP. At this time, substantially all of the additions are from Advantage MPP , and substantially all of the claims paid are from the original MPP.

The following table presents the changes in the LRA for original MPP and Advantage MPP ($ amounts in millions).

	2019		
LRA Activity	**Original**	**Advantage**	**Total**
Liability, beginning of year	$ 7	$ 167	$ 174
Additions	—	15	15
Claims paid	—	—	—
Distributions to PFIs	—	(2)	(2)
Liability, end of year	$ 7	$ 180	$ 187

SMI. Losses that exceed available LRA funds are covered by SMI (for original MPP loans) up to a severity of approximately 50% of the original property value of the loan, depending on the SMI contract terms. We absorb any losses in excess of available LRA funds and SMI.

Our current SMI providers are Mortgage Guaranty Insurance Corporation and Genworth Mortgage Insurance Corporation. For pools of loans acquired under the original MPP, we entered into the insurance contracts directly with the SMI providers, including a contract for each pool or aggregate pool. Pursuant to Finance Agency regulation, the PFI must be responsible for all expected credit losses on the mortgages sold to us. Therefore, the PFI was the purchaser of the SMI policy, and we are designated as the beneficiary. The premiums are the PFI's obligation. As an administrative convenience, we collect the SMI premiums from the monthly mortgage remittances received from the PFIs or their designated servicer and remit them to the SMI provider.

Credit Risk Exposure to SMI Providers. As of December 31, 2019, we were the beneficiary of SMI coverage, under our original MPP, on conventional mortgage pools with a total UPB of $562 million. The lowest credit rating from S&P, Moody's and Fitch Ratings, Inc., stated in terms of the S&P equivalent, for each of our SMI companies is BBB+ for Mortgage Guaranty Insurance Corporation and BB+ for Genworth Mortgage Insurance Corporation. We evaluate the recoverability related to PMI and SMI for mortgage loans that we hold, including insurance companies placed under enhanced supervision of state regulators. We also evaluate the recoverability of outstanding receivables from our PMI and SMI providers related to outstanding and unpaid claims.

See *Notes to Financial Statements - Note 7 - Allowance for Credit Losses* for our estimates of recovery associated with the expected amount of our claims for all providers of these policies in determining our allowance for loan losses.

MPF Program. Credit risk arising from AMA activities under our participation in mortgage loans originated under the MPF Program falls into three categories: (i) the risk of credit losses arising from our FLA and last loss positions; (ii) the risk that a PFI will not perform as promised with respect to its loss position provided through its CE Obligations on mortgage loan pools; and (iii) the risk that a third-party insurer (obligated under PMI arrangements) will fail to perform as expected. Should a PMI third-party insurer fail to perform, our credit risk exposure would increase because our FLA is the next layer to absorb credit losses on mortgage loan pools.

Credit Enhancements. Our management of credit risk in the MPF Program considers the several layers of loss protection that are defined in agreements among the FHLBank of Topeka and its PFIs. The availability of loss protection may differ slightly among MPF products. Our loss protection consists of the following loss layers, in order of priority:

(i) Borrower equity;
(ii) PMI (when applicable);
(iii) FLA, which functions as a tracking mechanism for determining our potential loss exposure under each pool prior to the PFI's CE Obligation; and
(iv) CE Obligation, which absorbs losses in excess of the FLA in order to limit our loss exposure to that of an investor in an MBS deemed to be investment-grade.

PMI. For a conventional loan, PMI, if applicable, covers losses or exposure down to approximately an LTV ratio between 65% and 80% based upon the original appraisal, original LTV ratio, term, and amount of PMI coverage. As of December 31, 2019, we had PMI coverage on $19 million or 11% of our conventional MPF Program mortgage loans.

FLA and CE Obligation. If losses occur in a pool, these losses will either be: (i) recovered through the withholding of future performance-based CE fees from the PFI or (ii) absorbed by us in the FLA. As of December 31, 2019, our exposure under the FLA totaled $4 million, and CE obligations available to cover losses in excess of the FLA were $2 million. PFIs must fully collateralize their CE Obligation with assets considered acceptable by the FHLBank of Topeka.

MPP and MPF Program Loan Characteristics. Two indicators of credit quality at origination are LTV ratios and credit scores provided by FICO®. FICO® provides a commonly used measure to assess a borrower's credit quality, with scores ranging from a low of 300 to a high of 850. The combination of a lower FICO® score and a higher LTV ratio is a key driver of potential mortgage delinquencies and defaults.

The following tables present these two characteristics at origination of our MPP and MPF Program conventional loan portfolios as a percentage of the UPB outstanding ($ amounts in millions).

	December 31, 2019				
		% of UPB Outstanding			
FICO® SCORE (1)	**UPB**	**Current**	**Past Due 30-59 Days**	**Past Due 60-89 Days**	**Past Due 90 Days or More**
619 or less	$ 2	85.4 %	13.3 %	1.3 %	— %
620-659	55	90.0 %	4.3 %	2.6 %	3.1 %
660-699	726	97.9 %	1.5 %	0.3 %	0.3 %
700-739	2,098	98.9 %	0.8 %	0.1 %	0.2 %
740 or higher	7,382	99.7 %	0.2 %	0.1 %	— %
Total	$ 10,263	99.4 %	0.4 %	0.1 %	0.1 %

(1) Represents the FICO® score at origination of the lowest scoring borrower for the related loan.

For borrowers in our conventional loan portfolio at December 31, 2019, 99% of the borrowers had FICO® scores greater than 660 at origination and the weighted average FICO® score at origination was 761.

LTV Ratio (1)	**December 31, 2019**
< = 60%	14 %
> 60% to 70%	15 %
> 70% to 80%	54 %
> 80% to 90% (2)	12 %
> 90% (2)	5 %
Total	100 %

(1) At origination.
(2) These conventional loans were required to have PMI at origination.

For borrowers in our conventional loan portfolio at December 31, 2019, 83% of the borrowers had an LTV ratio of 80% or lower at origination and the weighted average LTV ratio at origination was 74%.

We believe these two measures indicate that these loans have a low risk of default.

We do not knowingly purchase any loan that violates the terms of our Anti-Predatory Lending Policy. In addition, we require our members to warrant to us that all of the loans sold to us are in compliance with all applicable laws, including prohibitions on anti-predatory lending.

MPP and MPF Program Loan Concentration. The following table presents the percentage of UPB of MPP and MPF Program conventional loans outstanding at December 31, 2019 for the five largest state concentrations.

By State	**December 31, 2019**
Indiana	31 %
Michigan	30 %
California	11 %
Virginia	3 %
Colorado	3 %
All others	22 %
Total	100 %

MPP and MPF Program Credit Performance. The UPB of our MPP and MPF Program conventional and FHA loans 90 days or more past due and accruing interest, non-accrual loans and TDRs, along with the allowance for loan losses, are presented in the table below ($ amounts in millions).

	As of and for the Years Ended December 31,				
	2019	**2018**	**2017**	**2016**	**2015**
Past Due, Non-Accrual and Restructured Loans					
Past due 90 days or more and still accruing interest	$ 13	$ 14	$ 19	$ 27	$ 34
Non-accrual loans (1) (2)	1	2	3	5	9
TDRs (3)	12	12	14	14	15
Allowance for Loan Losses on Mortgage Loans (4)					
Allowance for loan losses, beginning of the year	$ 1	$ 1	$ 1	$ 1	$ 3
Charge-offs	—	—	—	—	(1)
Provision for (reversal of) loan losses	(1)	—	—	—	(1)
Allowance for loan losses, end of the year	$ —	$ 1	$ 1	$ 1	$ 1

(1) Non-accrual loans are defined as conventional mortgage loans where either (i) the collection of interest or principal is doubtful, or (ii) interest or principal is past due for 90 days or more, except when the loan is well secured and in the process of collection (e.g., through credit enhancements and monthly servicer remittances on a scheduled/scheduled basis).

(2) The interest income shortfall on non-accrual loans was less than $1 million for the years ended December 31, 2019, 2018, 2017, 2016, and 2015.

(3) Represents TDRs that are still performing. TDRs related to mortgage loans are considered to have occurred when a concession is granted to the debtor related to the debtor's financial difficulties that would not otherwise be considered for economic or legal reasons. We do not participate in government-sponsored loan modification programs.

(4) At December 31, 2019, 2018, 2017, 2016, and 2015, our allowance for loan losses included an estimate of probable loss on $1 million, $2 million, $2 million, $3 million, and $5 million, respectively, of principal previously paid in full by the servicers that remained subject to potential claims by those servicers for any losses resulting from past or future liquidations of the underlying properties.

The serious delinquency rate for government-guaranteed or -insured mortgages was 0.94% at December 31, 2019, compared to 0.45% at December 31, 2018. We rely on insurance provided by the FHA, which generally provides coverage for 100% of the principal balance of the underlying mortgage loan and defaulted interest at the debenture rate. However, we would receive defaulted interest at the contractual rate from the servicer. The serious delinquency rate for conventional mortgages was 0.10% at December 31, 2019, compared to 0.12% at December 31, 2018. Both rates were below the national serious delinquency rate.

Although we establish credit enhancements in each mortgage pool purchased under our original MPP at the time of the pool's origination that are sufficient to absorb loan losses up to approximately 50% of the property's original value (subject, in certain cases, to an aggregate stop-loss provision in the SMI policy), the magnitude of the declines in home prices and increases in the time to complete foreclosures in past years resulted in losses in some of the mortgage pools that have exhausted the LRA; however, credit enhancement support is still available through the SMI coverage. Some of our mortgage pools have loans originated in states and localities (e.g., Florida, Illinois, Pennsylvania, New Jersey and New York) that have had the most lengthy foreclosure processes. We purchased most of these loan pools from institutions that are no longer members of our Bank and, thus, have stopped selling mortgage loans to us. When a mortgage pool's credit enhancements are exhausted, we will incur any additional loan losses in that pool.

Overall, the trends in the credit performance of our mortgage loans held for portfolio over the last five years have been positive.

Derivatives. The Dodd-Frank Act provides statutory and regulatory requirements for derivatives transactions, including those we use to hedge our interest rate and other risks. We are required to clear certain interest-rate swaps that fall within the scope of the first mandatory clearing determination. Certain derivatives designated by the CFTC as "made available to trade" are required to be executed on a swap execution facility.

Our over-the-counter derivative transactions are either (i) held with a counterparty (uncleared derivatives) or (ii) cleared through a Futures Commission Merchant (i.e., clearing agent) with a clearinghouse (cleared derivatives).

- *Uncleared Derivatives.* We are subject to credit risk due to the potential non-performance by the counterparties to our uncleared derivative transactions. We require collateral agreements with our uncleared derivative counterparties. The exposure thresholds above which collateral must be delivered vary; the threshold is zero in some cases.
- *Cleared Derivatives.* We are subject to credit risk due to the potential non-performance by the clearinghouse and clearing agent because we are required to post initial and variation margin through the clearing agent, on behalf of the clearinghouse, which exposes us to institutional credit risk if either the clearing agent or the clearinghouse fails to meet its obligations. Collateral is required to be posted daily for changes in the value of cleared derivatives to mitigate each counterparty's credit risk. In addition, all derivative transactions are subject to mandatory reporting and record-keeping requirements.

The contractual or notional amount of derivative transactions reflects the extent of our participation in the various classes of financial instruments. Our credit risk with respect to derivative transactions is the estimated cost of replacing the derivative positions if there is a default, minus the value of any related collateral. In determining credit risk, we consider accrued interest receivables and payables as well as the requirements to net assets and liabilities. For more information, see *Notes to Financial Statements - Note 9 - Derivatives and Hedging Activities.*

The following table presents key information on derivative positions with counterparties on a settlement date basis using the lowest credit ratings from S&P and Moody's, stated in terms of the S&P equivalent ($ amounts in millions).

December 31, 2019	**Notional Amount**	**Net Estimated Fair Value Before Collateral**	**Cash Collateral Pledged To (From) Counterparty**	**Net Credit Exposure**
Non-member counterparties:				
Asset positions with credit exposure				
Cleared derivatives [1]	$ 26,104	$ 8	$ 185	$ 193
Liability positions with credit exposure				
Uncleared derivatives - AA	815	(3)	4	1
Uncleared derivatives - A	20,980	(261)	275	14
Total derivative positions with credit exposure to non-member counterparties	47,899	(256)	464	208
Total derivative positions with credit exposure to member institutions [2]	57	—	—	—
Subtotal - derivative positions with credit exposure	47,956	$ (256)	$ 464	$ 208
Derivative positions without credit exposure	2,446			
Total derivative positions	$ 50,402			

(1) Represents derivative transactions cleared by two clearinghouses (one rated AA- and the other unrated).
(2) Includes MDCs from member institutions under our MPP.

AHP. Our AHP requires members and project sponsors to make commitments with respect to the usage of the AHP grants to assist very low-, low-, and moderate-income families, as defined by regulation. If these commitments are not met, we may have an obligation to recapture these funds from the member or project sponsor to replenish the AHP fund. This credit exposure is addressed in part by evaluating project feasibility at the time of an award and the member's ongoing monitoring of AHP projects.

Liquidity Risk Management. The primary objectives of liquidity risk management are to maintain the ability to meet obligations as they come due and to meet the credit needs of our member borrowers in a timely and cost-efficient manner. We routinely monitor the sources of cash available to meet liquidity needs and use various tests and guidelines to manage our liquidity risk.

Daily projections of required liquidity are prepared to help us maintain adequate funding for our operations. Operational liquidity levels are determined assuming sources of cash from both the FHLBank System's ongoing access to the capital markets and our holding of liquid assets to meet operational requirements in the normal course of business. Contingent liquidity levels are determined based upon the assumption of an inability to readily access the capital markets for a period of 20 business days. These analyses include projections of cash flows and funding needs, targeted funding terms, and various funding alternatives for achieving those terms. A contingency plan allows us to maintain sufficient liquidity in the event of operational disruptions at our Bank, at the Office of Finance, or in the capital markets.

For more information on liquidity management, see *Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations - Liquidity and Capital Resources - Liquidity.*

Operational Risk Management. Operational risk is the risk of loss resulting from inadequate or failed internal processes, people, and systems, or from external events. Our management has established policies, procedures, and controls and acquired insurance coverage to mitigate operational risk. Our Internal Audit department, which reports directly to the Audit Committee of the board of directors, regularly monitors our adherence to established policies, procedures, applicable regulatory requirements and best practices.

Our enterprise risk management function and business units complete a comprehensive annual risk and control self-assessment that reinforces our focus on maintaining strong internal controls by identifying significant inherent risks and the mitigating internal controls in order for the residual risks to be assessed and the appropriate strategy designed to accept, transfer, avoid or mitigate such risks. The risk assessment process provides management and the board of directors with a detailed and transparent view of our identified risks and related internal control structure.

We use various financial models to quantify financial risks and analyze potential strategies. We maintain a model risk management program that includes a validation program intended to mitigate the risk of loss resulting from model errors or the incorrect use or application of model output, which could potentially lead to inappropriate business or operational decisions.

Our operations rely on the secure processing, storage and transmission of confidential and other information in our computer systems, software and networks. As a result, our Cyber Risk Management Program is designed to protect our information assets, information systems and sensitive data from internal, external, vendor and third party cyber risks, including due diligence, risk assessments, and ongoing monitoring of critical vendors by our Vendor Management Office. The Cyber Risk Management Program includes processes for monitoring existing, emerging and imminent threats as well as cyber attacks impacting our industry in order to develop appropriate risk management strategies. Protective security controls, detective controls, and responsive controls are in place for critical infrastructure, systems and services. Periodically, we engage external third parties to assess our Cyber Risk Management Program and perform testing to validate the effectiveness of the program.

In order to ensure our ongoing ability to provide liquidity and service to our members, we have business continuity plans designed to restore critical business processes and systems in the event of a business interruption. We operate both a business resumption center and a disaster recovery data center, at separate locations, with the objective of being able to fully recover all critical activities in a timely manner. Both facilities are subject to periodic testing to demonstrate the Bank's resiliency in the event of a disaster. We also have a back-up agreement in place with the FHLBank of Cincinnati in the event the Bank's primary and back-up facilities are inoperable.

We have insurance coverage for cybersecurity, employee fraud, forgery and wrongdoing, as well as Directors' and Officers' liability coverage that provides protection for claims alleging breach of duty, misappropriation of funds, neglect, acts of omission, employment practices, and fiduciary liability. We also have property, casualty, computer equipment, automobile, and other various types of insurance coverage. We complete periodic reviews to ensure the Bank maintains all insurance coverages at commercially appropriate levels.

Business Risk Management. Business risk is the risk of an adverse impact on profitability resulting from external factors that may occur in both the short and long term. Business risk includes political, strategic, reputation and/or regulatory events that are beyond our control. Our board of directors and management seek to mitigate these risks by, among other actions, maintaining an open and constructive dialogue with regulators, providing input on potential legislation, conducting long-term strategic planning and continually monitoring general economic conditions and the external environment.

Our financial strategies are generally designed to enable us to safely expand and contract our assets, liabilities, and capital in response to changes in our member base and in our members' credit needs. Our capital generally grows when members are required to purchase additional capital stock as they increase their advances borrowings or other business activities with us. We may also repurchase excess capital stock from our members as business activities with them decline. In addition, in order to meet internally established thresholds or to meet our regulatory capital requirement, we, at the discretion of our board of directors, could undertake capital preservation initiatives such as: (i) voluntarily reducing or eliminating dividend payments; (ii) suspending excess capital stock repurchases; or (iii) raising capital stock holding requirements for our members.

Replacement of the LIBOR Benchmark Interest Rate. In July 2017, the Financial Conduct Authority ("FCA"), a regulator of financial services firms and financial markets in the UK, announced that it will plan for a phase-out of regulatory oversight of LIBOR interest rate indices. The FCA indicated that it will cease persuading or compelling banks to submit rates for the calculation of LIBOR after 2021, and that the continuation of LIBOR on the current basis cannot and will not be guaranteed after 2021. The Alternative Reference Rates Committee has proposed SOFR as its recommended alternative to LIBOR, and the Federal Reserve Bank of New York began publishing SOFR rates in April 2018.

Most of our advances, investments, CO bonds, derivative assets, derivative liabilities, and related collateral are indexed to LIBOR. Some of these assets and liabilities and related collateral have maturity dates that extend beyond 2021. As a result, we are evaluating the potential impact of the replacement of the LIBOR benchmark interest rate, including the possibility of SOFR as the dominant replacement on an ongoing basis.

We have also developed an evolving transition plan that will change with market developments and member needs. The key components of our LIBOR replacement plan are: exposure, fallback language, information technology systems preparation, and balance sheet strategy. We have assessed our current exposure to LIBOR including completing an inventory of all financial instruments impacted and identifying financial instruments and contracts that may require adding or adjusting fallback language. We are assessing our operational readiness including potential effects on core Bank systems and replacing LIBOR references in policies and procedures. From a balance sheet management perspective, we continue to participate in the issuance of SOFR-indexed debt. In addition, in accordance with the Supervisory Letter issued by the Finance Agency to the FHLBanks, we have ceased purchasing investments that reference LIBOR and mature after December 31, 2021. We have also suspended the issuance of LIBOR-indexed debt with maturities beyond 2021. However, until March 31, 2020, we will continue to issue fixed-rate debt with maturities beyond 2021 that are hedged with LIBOR-indexed interest-rate swaps. Beginning March 31, 2020, we will no longer enter into derivatives with swaps, caps, or floors indexed to LIBOR that terminate after December 31, 2021. Further, beginning March 31, 2020, we expect to suspend transactions in certain structured advances and advances with terms directly linked to LIBOR that mature after December 31, 2021. We are also revising our members’ collateral reporting requirements to distinguish LIBOR-linked collateral that matures after December 31, 2021. Finally, we have implemented OIS as an alternative interest rate hedging strategy for certain financial instruments.

The following table presents our LIBOR-rate indexed financial instruments outstanding at December 31, 2019 by year of maturity ($ amounts in millions).

	Year of Maturity			
LIBOR-Indexed Financial Instruments	**2020**	**2021**	**2022 and thereafter**	**Total**
Assets:				
Advances, par value [(1)]	$ 178	$ 311	$ 3,841	$ 4,330
Mortgage-backed securities, par value [(2)]	12	—	4,437	4,449
Total	$ 190	$ 311	$ 8,278	$ 8,779
Interest-rate swaps - receive leg, notional:				
Cleared	$ 4,364	$ 1,871	$ 7,087	$ 13,322
Uncleared	279	117	10,814	11,210
Total	$ 4,643	$ 1,988	$ 17,901	$ 24,532
Liabilities:				
CO bonds, par value [(2)]	$ 10,235	$ 1,050	$ —	$ 11,285
Interest-rate swaps - pay leg, notional:				
Cleared	$ 4,520	$ 849	$ 234	$ 5,603
Uncleared	2,737	2,445	6,248	11,430
Total	$ 7,257	$ 3,294	$ 6,482	$ 17,033

(1) Year of maturity on our advances is based on redemption term.

(2) Year of maturity on our MBS and CO bonds is based on contractual maturity. The actual maturities on MBS will likely differ from contractual maturities as borrowers have the right to prepay their obligations with or without prepayment fees.

For more information, see *Item 1A. Risk Factors - Changes to or Replacement of the LIBOR Benchmark Interest Rate Could Adversely Affect Our Business, Financial Condition and Results of Operations*.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

As used in this Item, unless the context otherwise requires, the terms "we," "us," "our", and "Bank" refer to the Federal Home Loan Bank of Indianapolis or its management. We use acronyms and terms throughout this Item that are defined herein or in the *Defined Terms*.

Market risk is the risk that the market value or estimated fair value of our overall portfolio of assets and liabilities, including derivatives, or our net earnings will decline as a result of changes in interest rates or financial market volatility. Market risk includes the risks related to:

- movements in interest rates over time;
- changes in mortgage prepayment speeds over time;
- advance prepayments;
- actual and implied interest-rate volatility;
- the change in the relationship between short-term and long-term interest rates (i.e., the slope of the consolidated obligation and LIBOR yield curves);
- the change in the relationship of FHLBank System debt spreads to relevant indices, primarily LIBOR (commonly referred to as "basis" risk); and
- the change in the relationship between fixed rates and variable rates.

The goal of market risk management is to preserve our financial strength at all times, including during periods of significant market volatility and across a wide range of possible interest-rate scenarios. We regularly assess our exposure to changes in interest rates using a diverse set of analyses and measures. As appropriate, we may rebalance our portfolio to help attain our risk management objectives.

Our general approach toward managing interest-rate risk is to acquire and maintain a portfolio of assets and liabilities that, together with their associated hedges, limit our expected interest-rate sensitivity to within our specified tolerances. Additionally, in order to manage the exposure to contraction (prepayment) and extension risk, the outstanding balance of mortgage loans is limited to a proportion of total assets and the total amount of our investments in MBS must not exceed 300% of our total regulatory capital on the day of purchase. Derivative financial instruments, primarily interest-rate swaps, are frequently employed to hedge the interest-rate risk and/or embedded option risk on advances, debt, GSE debentures and Agency MBS held as investments.

The prepayment option on an advance can create interest-rate risk. If a member prepays an advance, we could suffer lower future income if the principal portion of the prepaid advance is reinvested in lower yielding assets that continue to be funded by higher cost debt. To protect against this risk, we charge a prepayment fee, thereby substantially reducing market risk.

We have significant investments in mortgage loans and MBS. The prepayment options embedded in mortgages can result in extensions or contractions in the expected weighted average life of these investments, depending on changes in interest rates and other economic factors. We primarily manage the interest-rate and prepayment risk associated with mortgages through debt issuance, which includes both callable and non-callable debt, to achieve cash-flow patterns and liability durations similar to those expected on the mortgage portfolios. Due to the use of call options and lockouts, and by selecting appropriate maturity sectors, callable debt provides an element of protection for the prepayment risk in the mortgage portfolios. The duration of callable debt, like that of a mortgage, shortens when interest rates decrease and lengthens when interest rates increase.

Significant resources, including analytical computer models and an experienced professional staff, are devoted to properly measuring the level of interest-rate risk in the balance sheet, thus allowing us to monitor the risk against policy and regulatory limits. We use asset and liability models to calculate market values under alternative interest-rate scenarios. The models analyze our financial instruments, including derivatives, using broadly accepted algorithms with consistent and appropriate behavioral assumptions, market prices, market data (such as rates, volatility, etc.) and current position data. On at least an annual basis, we review the major assumptions and methodologies used in the models, including discounting curves, spreads for discounting, and prepayment assumptions.

Types of Key Market Risks

Our market risk results from various factors, such as:

- **Interest Rates** - parallel and non-parallel shifts in the yield curve;
- **Basis Risk** - the risk that changes to one interest-rate index will not perfectly offset changes to another interest-rate index;
- **Volatility** - varying values of assets or liabilities with embedded options, such as mortgages and callable bonds, created by the changing expectations of the magnitude or frequency of changes in interest rates;
- **Option-Adjusted Spread** - an estimate of the incremental yield spread between a particular financial instrument (i.e., an advance, investment or derivative contract) and a benchmark yield (e,g,, LIBOR). This includes consideration of potential variability in the instrument's cash flows resulting from any options embedded in the instrument, such as prepayment options; and
- **Prepayment Speeds** - expected levels of principal payments on mortgage loans held in a portfolio or supporting an MBS, variations from which alter their cash flows, yields, and values, particularly in cases where the loans or MBS are acquired at a premium or discount.

Measuring Market Risks

To evaluate market risk, we utilize multiple risk measurements, including duration of equity, duration gap, convexity, VaR, earnings at risk, and changes in MVE. Periodically, we conduct stress tests to measure and analyze the effects that extreme movements in the level of interest rates and the shape of the yield curve would have on our risk position.

Market Risk-Based Capital Requirement. We are subject to the Finance Agency's risk-based capital regulations. This regulatory framework requires the maintenance of sufficient permanent capital to meet the combined credit risk, market risk, and operations risk components. The market risk-based capital component is the sum of two factors. The first factor is the market value of the portfolio at risk from movements in interest rates that could occur during times of market stress. This estimation is accomplished through an internal VaR-based modeling approach that was approved by the Finance Board before the implementation of our capital plan.

The VaR approach used for calculating the first factor is primarily based upon historical simulation methodology. The estimation incorporates scenarios that reflect interest-rate shifts, interest-rate volatility, and changes in the shape of the yield curve. These observations are based on historical information from 1978 to the present. When calculating the risk-based capital requirement, the VaR comprising the first factor of the market risk component is defined as the potential dollar loss from adverse market movements, for a holding period of 120 business days, with a 99% confidence interval, based on those historical prices and market rates. The table below presents the VaR ($ amounts in millions).

Years Ended	VaR	High	Low	Average
December 31, 2019	$ 198	$ 326	$ 176	$ 249
December 31, 2018	298	381	298	336

The second factor is the amount, if any, by which the current market value of total regulatory capital is less than 85% of the book value of total regulatory capital.

Duration of Equity. Duration of equity is a measure of interest-rate risk and is one of the primary metrics used to manage our market risk exposure. It is an estimate of the percentage change in our MVE that could be caused by a 100 bps parallel upward or downward shift in the interest-rate curves. We value our portfolios using the LIBOR curve, the OIS curve, the consolidated obligation curve, the SOFR curve or external prices. The market value and interest-rate sensitivity of each asset, liability, and off-balance sheet position is determined to compute our duration of equity. We calculate duration of equity using the interest-rate curve as of the date of calculation and for defined interest rate shock scenarios, including scenarios for which the interest-rate curve is 100 bps and 200 bps higher or lower than the base level. Our board of directors determines acceptable ranges for duration of equity for the base scenario. A negative duration of equity suggests adverse exposure to falling rates and a favorable response to rising rates, while a positive duration suggests adverse exposure to rising rates and a favorable response to falling rates.

The Bank's duration of equity is impacted by the convexity of its financial instruments. Convexity measures the rate of change of duration as a function of interest-rate changes. Measurement of convexity is important because of the optionality embedded in the mortgage assets and callable debt liabilities. The mortgage assets exhibit negative convexity due to embedded prepayment options. Callable debt liabilities exhibit positive convexity due to embedded options that we can exercise to redeem the debt prior to maturity. Management routinely reviews the net convexity exposure and considers it when developing funding and hedging strategies for the acquisition of mortgage-based assets. A primary strategy for managing convexity risk arising from our mortgage portfolio is the issuance of callable debt. The negative convexity of the mortgage assets tends to be partially offset by the positive convexity contributed by underlying callable debt liabilities.

Market Value of Equity. MVE represents the difference between the estimated market value of total assets and the estimated market value of total liabilities, including any off-balance sheet positions. It measures, in present value terms, the long-term economic value of current capital and the long-term level and volatility of net interest income.

We also monitor the sensitivities of MVE to potential interest-rate scenarios. We measure potential changes in the market value to book value of equity based on the current month-end level of rates versus large parallel rate shifts in rates. Our board of directors determines acceptable ranges for the change in MVE for 200 bps parallel upward or downward shift in the interest-rate curves.

Key Metrics. The following table presents certain market and interest-rate metrics under different interest-rate scenarios ($ amounts in millions).

December 31, 2019	**Down 200** [1]	**Down 100** [1]	**Base**	**Up 100**	**Up 200**
MVE	$ 3,353	$ 3,285	$ 3,237	$ 3,175	$ 3,171
Percent change in MVE from base	3.6 %	1.5 %	0 %	(1.9)%	(2.0)%
MVE/book value of equity	96.4 %	94.4 %	93.0 %	91.2 %	91.1 %
Duration of equity [2]	2.0	0.5	2.4	0.5	0.5

December 31, 2018 [3]	**Down 200** [1]	**Down 100** [1]	**Base**	**Up 100**	**Up 200**
MVE	$ 3,240	$ 3,191	$ 3,120	$ 3,024	$ 2,995
Percent change in MVE from base	3.8 %	2.3 %	0 %	(3.1)%	(4.0)%
MVE/book value of equity	100.7 %	99.1 %	96.9 %	93.9 %	93.0 %
Duration of equity [2]	1.4	1.7	2.9	2.5	(0.3)

(1) Given the low interest rates in the short-to-medium term points of the yield curves, downward rate shocks are constrained to prevent rates from becoming negative.
(2) We use interest-rate shocks in 50 bps increments to determine duration of equity.
(3) Metrics previously presented have been revised.

The changes in those key metrics from December 31, 2018 resulted primarily from the change in market value of the assets and liabilities in response to changes in the market environment, changes in portfolio composition, and our hedging strategies.

We are in the process of refining certain methodologies underlying the calculations of our key risk metrics. The changes to the methodologies are subject to either approval or non-objection by the Finance Agency. If implemented, the net impact of the changes on our metrics is expected to be slightly favorable.

Duration Gap. A related measure of interest-rate risk is duration gap, which is the difference between the estimated durations (market value sensitivity) of assets and liabilities. Duration gap measures the sensitivity of assets and liabilities to interest-rate changes. Duration generally indicates the expected change in an instrument's market value resulting from an increase or a decrease in interest rates. Higher duration numbers, whether positive or negative, indicate greater volatility of market value in response to changing interest rates. The base case duration gap was 0.08% and 0.09% at December 31, 2019 and 2018, respectively.

As part of our overall interest-rate risk management process, we continue to evaluate strategies to manage interest-rate risk. Certain strategies, if implemented, could have an adverse impact on future earnings.

Use of Derivative Hedges

We use derivatives to hedge our market risk exposures. The primary types of derivatives used are interest-rate swaps and caps. Interest-rate swaps and caps increase the flexibility of our funding alternatives by providing specific cash flows or characteristics that might not be as readily available or cost effective if obtained in the cash debt market. We do not speculate using derivatives and do not engage in derivatives trading.

Hedging Debt Issuance. When CO bonds are issued, we often use the derivatives market to create funding that is more attractively priced than the funding available in the consolidated obligations market. A typical hedge of this type occurs when a CO bond is issued, while we simultaneously execute a matching interest rate swap. The counterparty pays a rate on the swap to us, which is designed to mirror the interest rate we pay on the CO bond. In this transaction we typically pay a variable interest rate, generally LIBOR, which closely matches the interest payments we receive on short-term or variable-rate advances or investments. This intermediation between the capital and swap markets permits the acquisition of funds by us at lower all-in costs than would otherwise be available through the issuance of simple fixed- or floating-rate consolidated obligations in the capital markets. The continued attractiveness of such debt depends on yield relationships between the debt and derivative markets. If conditions in these markets change, we may alter the types or terms of the CO bonds that we issue. Occasionally, interest rate swaps are executed to hedge discount notes.

Hedging Advances. Interest-rate swaps are also used to increase the flexibility of advance offerings by effectively converting the specific cash flows or characteristics that the borrower prefers into cash flows or characteristics that may be more readily or cost effectively funded in the debt markets.

Hedging Mortgage Loans. We use Agency TBAs to hedge MDC positions.

Hedging Investments. Some interest-rate swaps are executed to hedge investments. In addition, interest-rate caps are purchased to reduce the risk inherent in floating-rate instruments that include caps as part of the structure.

Other Hedges. We occasionally use derivatives, such as swaptions, to maintain our risk profile within the approved risk limits set forth in our Enterprise Risk Management Policy. On an infrequent basis, we may act as an intermediary between certain smaller member institutions and the capital markets by executing interest-rate swaps with members.

The volume of derivative hedges is often expressed in terms of notional amount, which is the amount upon which interest payments are calculated. The following table highlights the notional amounts by type of hedged item, hedging instrument, and hedging objective ($ amounts in millions).

Hedged Item/Hedging Instrument	Hedging Objective	Hedge Accounting Designation	December 31, 2019	December 31, 2018
Advances:				
Pay fixed, receive floating interest-rate swap (without options)	Converts the advance's fixed rate to a variable-rate index.	Fair-value	$ 10,961	$ 10,800
		Economic	22	26
Pay fixed, receive floating interest-rate swap (with options)	Converts the advance's fixed rate to a variable-rate index and offsets option risk in the advance.	Fair-value	6,128	3,152
Pay floating with embedded features, receive floating interest-rate swap (non-callable)	Reduces interest-rate sensitivity and repricing gaps by converting the advance's variable rate to a different variable-rate index and/or offsets embedded option risk in the advance.	Economic	2	2
Sub-total advances			17,113	13,980
Investments:				
Pay fixed, receive floating interest-rate swap	Converts the investment's fixed rate to a variable-rate index.	Fair-value	4,072	4,381
		Economic	5,010	—
Pay fixed, receive floating interest-rate swap (with options)	Converts the investment's fixed rate to a variable-rate index and offsets option risk in the investment.	Fair-value	4,166	3,501
Interest-rate cap	Offsets the interest-rate cap embedded in a variable-rate investment.	Economic	669	680
Sub-total investments			13,917	8,562
Mortgage loans:				
Interest-rate swaption	Provides the option to enter into an interest-rate swap to offset interest-rate or prepayment risk in a pooled mortgage portfolio hedge.	Economic	850	950
Forward settlement agreement	Protects against changes in market value of fixed-rate MDCs resulting from changes in interest rates.	Economic	70	44
Sub-total mortgage loans			920	994
CO bonds:				
Receive fixed, pay floating interest-rate swap (without options)	Converts the bond's fixed rate to a variable-rate index.	Fair-value	4,353	6,903
		Economic	250	928
Receive fixed or structured, pay floating interest-rate swap (with options)	Converts the bond's fixed rate to a variable-rate index and offsets option risk in the bond.	Fair-value	11,428	6,398
		Economic	—	10
Receive float, pay float basis swap	Reduces interest-rate sensitivity and repricing gaps by converting the bond's variable rate to a different variable-rate index.	Economic	1,000	—
Sub-total CO bonds			17,031	14,239
Discount notes:				
Receive fixed, pay floating interest-rate swap	Converts the discount note's fixed rate to a variable-rate index.	Economic	1,350	—
Sub-total discount notes			1,350	—
Stand-alone derivatives:				
MDCs	Protects against fair-value risk associated with fixed-rate mortgage purchase commitments.	Economic	71	44
Sub-total stand-alone derivatives			71	44
Total notional			$ 50,402	$ 37,819

Complex swaps include, but are not limited to, step-up bonds. The level of different types of derivatives is contingent upon and tends to vary with our balance sheet size, our members' demand for advances, mortgage loan purchase activity, and consolidated obligation issuance levels.

Interest-Rate Swaps. The following table presents the amount swapped by interest-rate payment terms for trading and AFS securities, advances, CO bonds, and discount notes ($ amounts in millions).

	December 31, 2019			December 31, 2018		
Interest-Rate Payment Terms	**Total Outstanding**	**Amount Swapped**	**% Swapped**	**Total Outstanding**	**Amount Swapped**	**% Swapped**
Trading securities:						
Total fixed-rate	$ 5,017	$ 5,017	100 %	$ —	$ —	— %
Total trading securities, fair value	$ 5,017	$ 5,017	100 %	$ —	$ —	— %
AFS securities:						
Total fixed-rate	$ 8,395	$ 8,395	100 %	$ 7,651	$ 7,651	100 %
Total AFS securities, amortized cost	$ 8,395	$ 8,395	100 %	$ 7,651	$ 7,651	100 %
Advances:						
Total fixed-rate	$ 24,999	$ 17,111	68 %	$ 24,750	$ 13,978	56 %
Total variable-rate	7,273	2	— %	8,079	2	— %
Total advances, par value	$ 32,272	$ 17,113	53 %	$ 32,829	$ 13,980	43 %
CO bonds:						
Total fixed-rate	$ 27,596	$ 16,031	58 %	$ 27,520	$ 14,239	52 %
Total variable-rate	17,067	1,000	6 %	12,855	—	— %
Total CO bonds, par value	$ 44,663	$ 17,031	38 %	$ 40,375	$ 14,239	35 %
Discount notes:						
Total fixed-rate	$ 17,713	$ 1,350	8 %	$ 20,953	$ —	— %
Total discount notes, par value	$ 17,713	$ 1,350	8 %	$ 20,953	$ —	— %

For information on credit risk related to derivatives, see *Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations - Risk Management - Credit Risk Management - Derivatives.*

Item 8.	FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA	Page Number

Management's Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over our financial reporting ("ICFR"), as defined in Rules 13a-15(f) and 15d-15(f) of the Exchange Act. Our ICFR is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles and includes those policies and procedures that:

- pertain to the maintenance of our records that, in reasonable detail, accurately and fairly reflect our transactions and asset dispositions;
- provide reasonable assurance that our transactions are recorded as necessary to permit the preparation of our financial statements in accordance with generally accepted accounting principles, and that our receipts and expenditures are being made only in accordance with authorizations of our management and board of directors; and
- provide reasonable assurance regarding the prevention or timely detection of any unauthorized acquisition, use or disposition of our assets that could have a material effect on our financial statements.

Reasonable assurance, as defined in Section 13(b)(7) of the Exchange Act, is the level of detail and degree of assurance that would satisfy prudent officials in the conduct of their own affairs in devising and maintaining a system of internal accounting controls.

Because of its inherent limitations, ICFR may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Under the supervision and with the participation of our management, including our principal executive officer, principal financial officer and principal accounting officer, we assessed the effectiveness of our ICFR as of December 31, 2019. Our assessment included extensive documentation, evaluation, and testing of the design and operating effectiveness of our ICFR. In making this assessment, our management used the criteria established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. These criteria include the areas of control environment, risk assessment, control activities, information and communication, and monitoring. Based on our assessment using these criteria, our management concluded that we maintained effective ICFR as of December 31, 2019.

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Shareholders of the
Federal Home Loan Bank of Indianapolis

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying statements of condition of the Federal Home Loan Bank of Indianapolis (the "Bank") as of December 31, 2019 and 2018, and the related statements of income, comprehensive income, capital and cash flows for each of the three years in the period ended December 31, 2019, including the related notes (collectively referred to as the "financial statements"). We also have audited the Bank's internal control over financial reporting as of December 31, 2019, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Bank as of December 31, 2019 and 2018, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2019 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Bank maintained, in all material respects, effective internal control over financial reporting as of December 31, 2019, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the COSO.

Basis for Opinions

The Bank's management is responsible for these financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express opinions on the Bank's financial statements and on the Bank's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Bank in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the financial statements included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ PricewaterhouseCoopers LLP
Indianapolis, Indiana
March 10, 2020

We have served as the Bank's auditor since 1990.

Federal Home Loan Bank of Indianapolis
Statements of Condition
($ amounts in thousands, except par value)

	December 31, 2019	December 31, 2018
Assets:		
Cash and due from banks (Note 3)	$ 220,294	$ 100,735
Interest-bearing deposits	809,141	1,210,705
Securities purchased under agreements to resell	1,500,000	3,212,726
Federal funds sold	2,550,000	3,085,000
Trading securities (Note 4)	5,016,649	—
Available-for-sale securities (Note 4)	8,484,478	7,703,596
Held-to-maturity securities (estimated fair values of $5,216,206 and $5,676,145, respectively) (Note 4)	5,216,401	5,673,720
Advances (Note 5)	32,480,108	32,727,668
Mortgage loans held for portfolio, net of allowance for loan losses of ($300) and ($600), respectively (Notes 6 and 7)	10,815,037	11,384,978
Accrued interest receivable	131,822	124,611
Premises, software, and equipment, net (Note 8)	36,549	37,198
Derivative assets, net (Note 9)	208,008	116,764
Other assets	42,288	33,998
Total assets	$ 67,510,775	$ 65,411,699
Liabilities:		
Deposits (Note 10)	$ 960,304	$ 500,440
Consolidated obligations (Note 11):		
Discount notes	17,676,793	20,895,262
Bonds	44,715,224	40,265,465
Total consolidated obligations, net	62,392,017	61,160,727
Accrued interest payable	178,981	179,728
Affordable Housing Program payable (Note 12)	38,084	40,747
Derivative liabilities, net (Note 9)	3,206	21,067
Mandatorily redeemable capital stock (Note 13)	322,902	168,876
Other liabilities	458,521	289,665
Total liabilities	64,354,015	62,361,250
Commitments and contingencies (Note 18)		
Capital (Note 13):		
Capital stock (putable at par value of $100 per share):		
Class B-1 issued and outstanding shares: 19,737,727 and 19,306,333, respectively	1,973,773	1,930,633
Class B-2 issued and outstanding shares: 3,028 and 3,192, respectively	303	319
Total capital stock	1,974,076	1,930,952
Retained earnings:		
Unrestricted	864,454	855,311
Restricted	250,854	222,499
Total retained earnings	1,115,308	1,077,810
Total accumulated other comprehensive income (Note 14)	67,376	41,687
Total capital	3,156,760	3,050,449
Total liabilities and capital	$ 67,510,775	$ 65,411,699

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

Federal Home Loan Bank of Indianapolis
Statements of Income
($ amounts in thousands)

	Years Ended December 31,		
	2019	**2018**	**2017**
Interest Income:			
Advances	$ 813,152	$ 726,243	$ 405,863
Interest-bearing deposits	22,050	21,004	3,397
Securities purchased under agreements to resell	79,100	58,940	6,144
Federal funds sold	62,235	54,602	44,054
Trading securities	53,213	—	—
Available-for-sale securities	214,558	197,600	121,049
Held-to-maturity securities	150,822	152,581	119,347
Mortgage loans held for portfolio	357,231	354,091	314,827
Other interest income, net	—	17	1,955
Total interest income	1,752,361	1,565,078	1,016,636
Interest Expense:			
Consolidated obligation discount notes	440,305	392,281	182,104
Consolidated obligation bonds	1,050,015	865,298	559,711
Deposits	12,899	11,021	4,784
Mandatorily redeemable capital stock	11,863	8,391	7,034
Other interest expense	37	—	—
Total interest expense	1,515,119	1,276,991	753,633
Net interest income	237,242	288,087	263,003
Provision for (reversal of) credit losses	(289)	(231)	51
Net interest income after provision for credit losses	237,531	288,318	262,952
Other Income:			
Net other-than-temporary impairment losses, credit portion	—	—	(207)
Net realized gains from sale of available-for-sale securities	—	32,407	—
Net realized losses from sale of held-to-maturity securities	—	(45)	—
Net gains on trading securities	32,996	—	—
Net losses on derivatives and hedging activities	(18,983)	(13,350)	(9,258)
Service fees	776	995	947
Standby letters of credit fees	703	609	747
Other, net (Note 18)	4,817	(107)	1,775
Total other income (loss)	20,309	20,509	(5,996)
Other Expenses:			
Compensation and benefits	55,494	49,938	45,630
Other operating expenses	29,526	28,476	26,349
Federal Housing Finance Agency	4,189	3,633	3,328
Office of Finance	4,907	4,503	3,687
Other	4,878	4,971	3,368
Total other expenses	98,994	91,521	82,362
Income before assessments	158,846	217,306	174,594
Affordable Housing Program assessments	17,071	22,570	18,163
Net income	$ 141,775	$ 194,736	$ 156,431

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

Federal Home Loan Bank of Indianapolis
Statements of Comprehensive Income
($ amounts in thousands)

	Years Ended December 31,		
	2019	**2018**	**2017**
Net income	$ 141,775	$ 194,736	$ 156,431
Other Comprehensive Income:			
Net change in unrealized gains (losses) on available-for-sale securities	36,827	(39,533)	53,051
Net non-credit portion of other-than-temporary impairment losses	—	(29,271)	2,436
Pension benefits, net (Note 15)	(11,138)	(915)	(449)
Total other comprehensive income (loss)	25,689	(69,719)	55,038
Total comprehensive income	$ 167,464	$ 125,017	$ 211,469

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

Federal Home Loan Bank of Indianapolis
Statements of Capital
Years Ended December 31, 2017, 2018, and 2019
($ amounts and shares in thousands)

	Capital Stock		Retained Earnings			Accumulated Other Comprehensive Income (Loss)	Total Capital
	Shares	Par Value	Unrestricted	Restricted	Total		
Balance, December 31, 2016	14,926	$ 1,492,581	$ 734,982	$ 152,265	$ 887,247	$ 56,368	$ 2,436,196
Total comprehensive income			125,145	31,286	156,431	55,038	211,469
Proceeds from issuance of capital stock	3,652	365,185					365,185
Cash dividends on capital stock (4.25%)			(67,344)	—	(67,344)		(67,344)
Balance, December 31, 2017	18,578	$ 1,857,766	$ 792,783	$ 183,551	$ 976,334	$ 111,406	$ 2,945,506
Total comprehensive income			155,788	38,948	194,736	(69,719)	125,017
Proceeds from issuance of capital stock	1,044	104,432					104,432
Redemption/repurchase of capital stock	—	(32)					(32)
Shares reclassified to mandatorily redeemable capital stock, net	(312)	(31,214)					(31,214)
Cash dividends on capital stock (5.00%)			(93,260)	—	(93,260)		(93,260)
Balance, December 31, 2018	19,310	$ 1,930,952	$ 855,311	$ 222,499	$1,077,810	$ 41,687	$ 3,050,449
Total comprehensive income			113,420	28,355	141,775	25,689	167,464
Proceeds from issuance of capital stock	1,941	194,102					194,102
Shares reclassified to mandatorily redeemable capital stock, net	(1,510)	(150,978)					(150,978)
Cash dividends on capital stock (5.31%)			(104,277)	—	(104,277)		(104,277)
Balance, December 31, 2019	19,741	$ 1,974,076	$ 864,454	$ 250,854	$1,115,308	$ 67,376	$ 3,156,760

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

Federal Home Loan Bank of Indianapolis
Statements of Cash Flows
($ amounts in thousands)

	Years Ended December 31,		
	2019	2018	2017
Operating Activities:			
Net income	$ 141,775	$ 194,736	$ 156,431
Adjustments to reconcile net income to net cash provided by operating activities:			
Amortization and depreciation	44,492	74,366	69,111
Changes in net derivative and hedging activities	(287,098)	45,201	(13,643)
Net other-than-temporary impairment losses, credit portion	—	—	207
Loss on disposition of equipment	—	37	—
Provision for (reversal of) credit losses	(289)	(231)	51
Net gains on trading securities	(32,996)	—	—
Net realized gains from sale of available-for-sale securities	—	(32,407)	—
Net realized losses from sale of held-to-maturity securities	—	45	—
Changes in:			
Accrued interest receivable	(7,660)	(19,387)	(11,783)
Other assets	(6,538)	541	(1,867)
Accrued interest payable	(986)	44,192	37,343
Other liabilities	20,684	46,224	27,890
Total adjustments, net	(270,391)	158,581	107,309
Net cash provided by (used in) operating activities	(128,616)	353,317	263,740
Investing Activities:			
Net change in:			
Interest-bearing deposits	65,727	(547,189)	(464,287)
Securities purchased under agreements to resell	1,712,726	(607,266)	(824,151)
Federal funds sold	535,000	(1,805,000)	370,000
Trading securities:			
Proceeds from sales	249,844	—	—
Purchases	(5,233,497)	—	—
Available-for-sale securities:			
Proceeds from maturities	510,500	102,522	1,041,227
Proceeds from sales	—	203,841	—
Purchases	(785,129)	(972,799)	(2,213,866)
Held-to-maturity securities:			
Proceeds from maturities	1,114,938	961,778	1,245,438
Proceeds from sales	—	41,226	—
Purchases	(663,607)	(780,272)	(1,325,424)
Advances:			
Principal repayments	351,631,834	343,131,228	280,448,048
Disbursements to members	(351,074,140)	(341,791,120)	(286,485,558)
Mortgage loans held for portfolio:			
Principal collections	1,879,313	1,191,873	1,245,983
Purchases from members	(1,307,159)	(2,255,741)	(2,144,552)
Purchases of premises, software, and equipment	(6,230)	(6,765)	(5,176)
Loans to other Federal Home Loan Banks:			
Principal repayments	—	400,000	100,000
Disbursements	—	(400,000)	(100,000)
Net cash used in investing activities	(1,369,880)	(3,133,684)	(9,112,318)

(continued)

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

Federal Home Loan Bank of Indianapolis
Statements of Cash Flows, continued
($ amounts in thousands)

	Years Ended December 31,		
	2019	**2018**	**2017**
Financing Activities:			
Changes in deposits	375,975	(68,140)	73,891
Net payments on derivative contracts with financing elements	1,824	(340)	(16,683)
Net proceeds from issuance of consolidated obligations:			
Discount notes	342,745,604	352,096,048	216,011,184
Bonds	40,241,691	17,386,007	23,856,245
Payments for matured and retired consolidated obligations:			
Discount notes	(345,937,042)	(351,576,032)	(212,480,262)
Bonds	(35,902,870)	(14,996,190)	(19,379,260)
Loans from other Federal Home Loan Banks:			
Proceeds from borrowings	250,000	—	—
Principal repayments	(250,000)	—	—
Proceeds from issuance of capital stock	194,102	104,432	365,185
Proceeds from issuance of mandatorily redeemable capital stock	3,704	—	—
Payments for redemption/repurchase of capital stock	—	(32)	—
Payments for redemption/repurchase of mandatorily redeemable capital stock	(656)	(26,660)	(5,721)
Dividend payments on capital stock	(104,277)	(93,260)	(67,344)
Net cash provided by financing activities	1,618,055	2,825,833	8,357,235
Net increase (decrease) in cash and due from banks	119,559	45,466	(491,343)
Cash and due from banks at beginning of year	100,735	55,269	546,612
Cash and due from banks at end of year	$ 220,294	$ 100,735	$ 55,269
Supplemental Disclosures:			
Cash activities:			
Interest payments	$ 1,501,471	$ 1,193,500	$ 682,034
Affordable Housing Program payments	19,734	13,989	12,595
Non-cash activities:			
Purchases of available-for-sale securities, traded but not yet settled	84,086	—	—
Capitalized interest on certain held-to-maturity securities	4,624	4,984	3,282
Par value of shares reclassified to mandatorily redeemable capital stock, net	150,978	31,214	—

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

These Notes to Financial Statements should be read in conjunction with the Statements of Condition as of December 31, 2019 and 2018, and the Statements of Income, Comprehensive Income, Capital, and Cash Flows for the years ended December 31, 2019, 2018, and 2017. We use acronyms and terms throughout these Notes to Financial Statements that are defined herein or in the *Defined Terms*. Unless the context otherwise requires, the terms "Bank," "we," "us," and "our" refer to the Federal Home Loan Bank of Indianapolis or its management.

Background Information

The Federal Home Loan Bank of Indianapolis, a federally chartered corporation, is one of 11 regional wholesale FHLBanks in the United States. The FHLBanks are GSEs that were organized under the Bank Act to serve the public by enhancing the availability of credit for residential mortgages and targeted community development. Even though we are part of the FHLBank System, we operate as a separate entity with our own management, employees and board of directors.

Each FHLBank is a financial cooperative that provides a readily available, competitively-priced source of funds to its member institutions. Regulated financial depositories and non-captive insurance companies engaged in residential housing finance that have their principal place of business located in, or are domiciled in, our district states of Michigan or Indiana are eligible for membership in our Bank. Additionally, qualified CDFIs are eligible to be members. Housing Associates, including state and local housing authorities, that meet certain statutory and regulatory criteria may also borrow from us. While eligible to borrow, Housing Associates are not members and, as such, are not allowed to hold our capital stock.

Each member must purchase a minimum amount of our capital stock based on the amount of its total mortgage assets. A member may be required to purchase additional activity-based capital stock as it engages in certain business activities with us. Members and former members own all of our capital stock. Former members (including certain non-member institutions that own our capital stock as a result of a merger with or acquisition of a member) hold our capital stock solely to support credit products or mortgage loans still outstanding on our statement of condition. All owners of our capital stock, to the extent declared by our board of directors, receive dividends on their capital stock, subject to the applicable regulations as discussed in *Note 13 - Capital*. For more information about transactions with related parties, see *Note 19 - Related Party and Other Transactions*.

The FHLBanks' Office of Finance was established to facilitate the issuance and servicing of the debt instruments of the FHLBanks, known as consolidated obligations, consisting of bonds and discount notes, and to prepare and publish the FHLBanks' combined quarterly and annual financial reports.

Consolidated obligations are the primary source of funds for the FHLBanks. Deposits, other borrowings and capital stock issued to members provide additional funds. We primarily use these funds to:

- disburse advances to members;
- acquire mortgage loans from PFIs through our MPP;
- maintain liquidity; and
- invest in other opportunities to support the residential housing market.

We also provide correspondent services, such as wire transfer, security safekeeping, and settlement services, to our members.

The Finance Agency is the independent federal regulator of the FHLBanks, Freddie Mac, and Fannie Mae. The Finance Agency's stated mission is to ensure that the housing GSEs operate in a safe and sound manner so that they serve as a reliable source of liquidity and funding for housing finance and community investment.

Note 1 - Summary of Significant Accounting Policies

Basis of Presentation. The accompanying financial statements have been prepared in accordance with GAAP and SEC requirements.

The financial statements contain all adjustments that are, in the opinion of management, necessary for a fair statement of our financial position, results of operations and cash flows for the periods presented. All such adjustments were of a normal recurring nature.

Use of Estimates. When preparing financial statements in accordance with GAAP, we are required to make subjective assumptions and estimates that may affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities, and the reported amounts of income and expense. Although the reported amounts and disclosures reflect our best estimates, actual results could differ significantly from these estimates. The most significant estimates pertain to derivatives and hedging activities, as discussed in *Note 9 - Derivatives and Hedging Activities,* and the fair values of financial instruments.

Estimated Fair Value. The estimated fair value amounts, recorded on the statement of condition and presented in the accompanying disclosures, have been determined based on the assumptions that we believe market participants would use in pricing the asset or liability and reflect appropriate valuation methods. Although we use our best judgment in estimating fair value, there are inherent limitations in any valuation technique. Therefore, these estimated fair values may not be indicative of the amounts that would have been realized in market transactions on the reporting dates. For more information, see *Note 17 - Estimated Fair Values*.

Reclassifications. We have reclassified certain amounts in prior periods to conform to the current period presentation. These reclassifications had no effect on total assets, total liabilities, total capital, net income, total comprehensive income or net cash flows.

Interest-Bearing Deposits, Securities Purchased under Agreements to Resell, and Federal Funds Sold. These investments provide short-term liquidity and are carried at cost. Securities purchased under agreements to resell are treated as short-term, collateralized financings. These securities are held in safekeeping in our name by third-party custodians approved by us. If the market value of the underlying assets declines below the market value required as collateral, the counterparty must (i) place an equivalent amount of additional securities in safekeeping in our name, and/or (ii) remit an equivalent amount of cash, or the dollar value of the resale agreement will be reduced accordingly. Federal funds sold are treated as short-term, unsecured loans.

Investment Securities. Purchases and sales of securities are recorded on a trade date basis. We classify investments as trading, HTM or AFS at the date of acquisition.

Trading Securities. Securities classified as trading are held for liquidity purposes and carried at fair value. We record changes in the fair value of these securities through other income as net gains (losses) on trading securities. Finance Agency regulation and our Enterprise Risk Management Policy prohibit trading in or the speculative use of these instruments and limit credit risk arising from these instruments. We did not have any investments classified as trading securities as of or during the years ended December 31, 2018 or 2017.

HTM Securities. Securities for which we have both the positive intent and ability to hold to maturity are classified as HTM. The carrying value includes adjustments made to the cost basis of the security for accretion, amortization, and collection of principal.

Certain changes in circumstances may cause us to change our intent to hold a particular security to maturity without necessarily calling into question our intent to hold other debt securities to maturity. Thus, the sale or transfer of an HTM security due to certain changes in circumstances, such as evidence of significant deterioration in the issuer's creditworthiness or changes in regulatory requirements, is not considered to be inconsistent with its original classification. Other events may also cause us to sell or transfer an HTM security without necessarily calling into question our intent to hold other debt securities to maturity, but such events must be isolated, non-recurring, unusual, and could not have been reasonably anticipated.

In addition, sales of HTM debt securities that meet either of the following two conditions may be considered as maturities for purposes of the classification of securities: (i) the sale occurs near enough to its maturity date (or call date, if exercise of the call is probable) that interest-rate risk is substantially eliminated as a pricing factor and any changes in market interest rates would not have a significant effect on the security's fair value, or (ii) the sale occurs after we have already collected a substantial portion (at least 85%) of the principal outstanding at acquisition due either to prepayments or to scheduled payments payable in equal installments (both principal and interest) over its term.

AFS Securities. Securities that are not classified as trading or HTM are classified as AFS and carried at estimated fair value. We record changes in the fair value of these securities in OCI as net change in unrealized gains (losses) on AFS securities, except for AFS securities in hedge relationships that qualify as fair-value hedges. For those securities, we record the portion of the change in fair value attributable to the risk being hedged in earnings together with the related change in the fair value of the derivative, and record the remainder of the change in the fair value in OCI as net unrealized gains (losses) on AFS securities.

For more information on the change in presentation of gains (losses) on our derivatives in qualifying hedge relationships, see *Note 2 - Recently Adopted and Issued Accounting Guidance*.

Premiums and Discounts. Since we hold a large number of similar loans underlying our MBS and ABS, for which prepayments are probable and the timing and amount of prepayments can be reasonably estimated, we consider estimates of future principal prepayments in the calculation of the constant effective yield necessary to apply the interest method. Therefore, we amortize or accrete premiums and discounts on MBS and ABS to interest income at an individual security level using a level-yield methodology over the estimated remaining cash flows of each security. This method requires that we estimate prepayments over the estimated life of the securities and make a retrospective adjustment of the effective yield each time we change the estimated remaining cash flows of the securities as if the new estimates had been used since the acquisition date. Changes in interest rates are a significant assumption used in estimating the timing and amount of prepayments.

We amortize or accrete premiums and discounts on all other investments at an individual security level using a level-yield methodology over the contractual life of the securities, under which prepayments are only taken into account as they actually occur.

Gains and Losses on Sales. We compute gains and losses on sales of investment securities using the specific identification method and include these gains and losses in other income as net realized gains (losses) from sale of securities.

Investment Securities - Other-Than-Temporary Impairment. On a quarterly basis, we evaluate our individual AFS and HTM securities that have been previously OTTI or are in an unrealized loss position to determine if any such securities are OTTI. A security is in an unrealized loss position (i.e., impaired) when its estimated fair value is less than its amortized cost. We consider an impaired debt security to be OTTI under any of the following conditions:

- we intend to sell the debt security;
- based on available evidence, we believe it is more likely than not that we will be required to sell the debt security before the anticipated recovery of its remaining amortized cost; or
- we do not expect to recover the entire amortized cost of the debt security.

Recognition of OTTI. If either of the first two conditions above is met, we recognize an OTTI loss in earnings equal to the entire difference between the debt security's amortized cost and its estimated fair value as of the statement of condition date. For those impaired securities that meet neither of these two conditions, we perform a cash flow analysis to determine whether we expect to recover the entire amortized cost of each security.

If the present value of the cash flows expected to be collected is less than the amortized cost of the debt security, a credit loss equal to that difference is recorded, and the carrying value of the debt security is adjusted to its estimated fair value. However, rather than recognizing the entire difference between the amortized cost and estimated fair value in earnings, only the amount of the impairment representing the credit loss (i.e., the credit component) is recognized in earnings, while the remaining amount, if any, related to all other factors (i.e., the non-credit component) is recognized in OCI. The credit loss on a debt security is capped at the amount of that security's unrealized loss. The new amortized cost basis of the OTTI security, which reflects the credit loss, will not be adjusted for any subsequent recoveries of fair value.

The total OTTI loss is included in other income with an offset for the portion recognized in OCI. The remaining amount represents the credit loss.

Additional OTTI. Subsequent to any recognition of OTTI, if the present value of cash flows expected to be collected is less than the amortized cost basis (which reflects previous credit losses), we record an additional credit loss equal to that difference as additional OTTI. The total amount of additional OTTI (both credit and non-credit component, if any) is determined as the difference between the security's amortized cost, less the amount of OTTI recognized in AOCI prior to the determination of this additional OTTI, and its fair value. For certain AFS or HTM securities that were previously impaired and have subsequently incurred additional credit losses, an amount equal to the additional credit losses, up to the amount of non-credit losses remaining in AOCI, is reclassified out of AOCI and into other income.

Subsequent increases and decreases (if not an additional OTTI) in the estimated fair value of OTTI AFS securities are netted against the non-credit component of OTTI recognized previously in AOCI. For HTM securities, the OTTI in AOCI is accreted to the carrying value of each security on a prospective basis, based on the amount and timing of future projected cash flows (with no effect on earnings unless the security is subsequently sold, matures or additional OTTI is recognized). For debt securities classified as AFS, we do not accrete the OTTI in AOCI to the carrying value because the subsequent measurement basis for these securities is estimated fair value.

Interest Income Recognition. As of the initial OTTI measurement date, a new accretable yield is calculated for the OTTI debt security. This yield is then used to calculate the portion of the credit losses included in the amortized cost of the security to be recognized into interest income each period over the remaining life of the security so as to match the amount and timing of future cash flows expected to be collected.

On a quarterly basis, we re-evaluate the estimated cash flows and accretable yield. If there is no additional OTTI and there is either (i) a significant increase in the security's expected cash flows or (ii) a favorable change in the timing and amount of the security's expected cash flows, we adjust the accretable yield on a prospective basis.

Advances. We record advances at amortized cost, adjusted for unamortized premiums, discounts, prepayment fees, swap termination fees, unearned commitment fees, and fair-value hedging basis adjustments. We amortize or accrete premiums, discounts, hedging basis adjustments, deferred prepayment fees and deferred swap termination fees, and recognize unearned commitment fees, to interest income using a level-yield methodology over the contractual life of the advance. When an advance is prepaid, we amortize a proportionate share of all remaining adjustments to amortized cost. We record interest on advances to interest income as earned.

Prepayment Fees. We charge a borrower a prepayment fee when the borrower repays certain advances prior to maturity. We report prepayment fees net of any swap termination fees and hedging basis adjustments.

Advance Modifications. When we fund a new advance concurrent with, or within a short period of time after, the prepayment of an original advance, we determine whether the transaction is effectively either (i) two separate transactions (the prepayment of the original advance and the disbursement of a new advance), defined as an advance extinguishment, or (ii) the continuation of the original advance as modified, defined as an advance modification.

We account for the transaction as an extinguishment if both of the following criteria are met: (i) the effective yield of the new advance is at least equal to the effective yield for a comparable advance to a member with similar collection risks who is not prepaying, and (ii) modifications of the original advance are determined to be more than minor, i.e., if the present value of the cash flows under the terms of the new advance is at least 10% different from the present value of the remaining cash flows under the original advance or through an evaluation of qualitative factors, which may include changes in the interest-rate exposure to the member by moving from a fixed to an adjustable rate advance. In all other instances, the transaction is accounted for as an advance modification.

If the transaction is determined to be an advance extinguishment, we recognize income from nonrefundable prepayment fees, net of swap termination fees, in the period that the extinguishment occurs. Alternatively, if no prepayment fees are received (e.g., the member requests that we embed the prepayment fee into the rate of the new advance), the excess of the present value of the cash flows of the new advance over that of a current market rate advance of comparable terms is recognized in current income, and the basis of the new advance is adjusted accordingly.

If the transaction is determined to be an advance modification, the receipt of nonrefundable prepayment fees, net of swap termination fees, associated with the modification of the original advance is not recognized in current income but is (i) included in the carrying value of the modified advance and amortized into interest income over the life of the new advance using a level-yield methodology or (ii) embedded into the rate of the modified advance and recorded as an adjustment to the interest accrual.

Mortgage Loans Held for Portfolio. We classify mortgage loans, for which we have the positive intent and ability to hold for the foreseeable future or until maturity or payoff, as held for portfolio. Accordingly, these mortgage loans are reported at cost, adjusted for premiums paid to and discounts received from PFIs, hedging basis adjustments, and the allowance for loan losses.

We amortize or accrete premiums and discounts, certain loan fees or costs, and hedging basis adjustments to interest income using a level-yield methodology over the contractual life of the loans. When a loan is prepaid, we amortize a proportionate share of all remaining adjustments to the loan's amortized cost to interest income.

Non-accrual Loans. We place a conventional mortgage loan on non-accrual status if it is determined that either (i) the collection of interest or principal is doubtful, or (ii) interest or principal is past due for 90 days or more, except when the loan is well secured and in the process of collection (e.g., through credit enhancements and monthly servicer remittances on a scheduled/scheduled basis). On loans with remittances on a scheduled/scheduled basis, we receive monthly principal and interest payments from the servicer regardless of whether the borrower has made payments to the servicer. Monthly servicer remittances on loans on an actual/actual basis may also be well secured; however, servicers on actual/actual remittance do not advance principal and interest due, regardless of borrower creditworthiness, until the payments are received from the borrower or when the loan is repaid. As a result, these loans are placed on non-accrual status once they become 90 days delinquent.

A government-guaranteed or -insured mortgage loan is not placed on non-accrual status when the collection of the contractual principal or interest is 90 days or more past due because of the contractual obligation of the loan servicer to pay defaulted interest at the contractual rate.

For those mortgage loans placed on non-accrual status, accrued but uncollected interest is reversed against interest income (for any interest accrued in the current year) and/or the allowance for loan losses (for any interest accrued in the previous year). We record cash payments received on non-accrual loans as a direct reduction of the recorded investment in the loan. When the recorded investment has been fully collected, any additional amounts collected are recognized as interest income. A loan on non-accrual status may be restored to accrual status when it becomes current (zero days past due) and three consecutive and timely monthly payments have been received.

REO. Our MPP was designed to require loan servicers to foreclose and liquidate in the servicer's name rather than in our name. Therefore, we do not take title to any foreclosed property or enter into any other legal agreement under which the borrower conveys all interest in the property to us to satisfy the loan. Upon completion of a triggering event (short sale, deed in lieu of foreclosure, foreclosure sale or post-sale confirmation or ratification, as applicable), the servicer is required to remit to us the full UPB and accrued interest at the next feasible remittance. Upon full receipt, the mortgage loan is derecognized from the statement of condition. As a result of these factors, we do not classify as REO any foreclosed properties collateralizing MPP loans that were previously recorded on our statement of condition.

In the case of a delay in receiving final payoff from the servicer beyond the second remittance cycle after a triggering event, we reclassify the amount owed from mortgage loans to a separate amount receivable from the servicer. The receivable is then evaluated for the amount expected to be recovered.

Under the MPF Program, REO is recorded in other assets and includes assets that have been received in satisfaction of debt through foreclosures. REO is recorded at the lower of cost or fair value less estimated selling costs. We recognize a charge-off to the allowance for credit losses if the fair value of the REO less estimated selling costs is less than the recorded investment in the loan at the date of the transfer from mortgage loans to REO. Any subsequent gains, losses, and carrying costs are included in other expense.

Loan Participations. We may sell participating interests in MPP loans acquired from our PFIs to other FHLBanks. The terms of the sale of these participating interests meet the accounting requirements for a sale and, therefore, the participating interests are de-recognized from our reported mortgage loan balances and a pro-rata portion of the fixed LRA is assumed by the participating FHLBank for its use in loss mitigation. As a result, available funds remaining in our LRA are limited to our pro-rata portion of the fixed LRA that is associated with the participating interests retained by us. The portion of the participation fees received related to our upfront costs is recognized immediately into income, while the remaining portion related to our ongoing costs is deferred and amortized to income over the remaining life of the participated loans.

Allowance for Credit Losses. An allowance for credit losses is separately established for each identified portfolio segment if it is probable that impairment has occurred as of the statement of condition date and the amount of loss can be reasonably estimated. Losses shall not be recognized before it is probable that they have been incurred, even though it may be probable based on past experience that losses will be incurred in the future.

Portfolio Segments. A portfolio segment is defined as the level at which an entity develops and documents a systematic methodology for determining its allowance for credit losses. We have developed and documented a systematic methodology for determining an allowance for credit losses, where applicable, for (i) credit products (advances, letters of credit, and other extensions of credit to members); (ii) term securities purchased under agreements to resell and term federal funds sold; (iii) government-guaranteed or -insured mortgage loans held for portfolio; and (iv) conventional mortgage loans held for portfolio. For details on each segment's allowance methodology, see *Note 7 - Allowance for Credit Losses*.

Classes of Financing Receivables. Classes of financing receivables generally are a disaggregation of a portfolio segment to the extent that they are needed to understand the exposure to credit risk arising from these financing receivables. We determined that no further disaggregation of our portfolio segments is needed, as the credit risk arising from these financing receivables is adequately assessed and measured at the portfolio segment level.

Troubled Debt Restructuring. A TDR related to MPP loans occurs when a concession is granted to a borrower for economic or legal reasons related to the borrower's financial difficulties that would not have been otherwise considered. Although we do not participate in government-sponsored loan modification programs, we do consider certain conventional loan modifications to be TDRs when the modification agreement permits the recapitalization of past due amounts, generally up to the original loan amount. If a borrower is having financial difficulty and a concession has been granted by the PFI with our approval, the loan modification is considered a TDR. No other terms of the original loan are modified, except for the possible extension of the contractual maturity date on a case-by-case basis. In no event does the borrower's original interest rate change.

MPP loans discharged in Chapter 7 bankruptcy proceedings without a reaffirmation of the debt are considered TDRs unless they are covered by SMI policies. Loans discharged in Chapter 7 bankruptcy proceedings with SMI policies are also considered to be TDRs unless (i) we will not suffer more than an insignificant delay in receiving all principal and interest due or (ii) we are not relinquishing a legal right to pursue the borrower for deficiencies for those loans not affirmed.

TDRs related to MPF Program loans occur when a concession is granted to a borrower for economic or legal reasons related to the borrower's financial difficulties that would not have been otherwise considered. Such TDRs generally involve modifying the borrower's monthly payment for a period of up to 36 months. MPF Program loans discharged in Chapter 7 bankruptcy proceedings without a reaffirmation of the debt are also considered TDRs.

For both the MPP and the MPF Program, modifications of government loans are not considered or accounted for as TDRs because we anticipate no loss of principal or interest accrued at the original contract rate, or significant delay, due to the government guarantee or insurance.

Impairment Methodology. A loan is considered impaired when, based on current and historical information and events, it is probable that not all amounts due according to the contractual terms of the loan agreement will be collected.

Loans that are considered collateral dependent are subject to individual evaluation for impairment instead of collective evaluation. Loans are considered collateral dependent if repayment is expected to be provided solely by the sale of the underlying property, i.e., there is no other available and reliable source of repayment (including LRA and SMI). We consider all impaired loans to be collateral dependent and, therefore, measure impairment based on the fair value of the underlying collateral less costs to sell.

Interest income on impaired loans is recognized in the same manner as non-accrual loans.

Charge-Off Policy. A charge-off is recorded to the extent that the recorded investment (including UPB, accrued interest, unamortized premiums or discounts, and hedging adjustments) in a loan will not be fully recovered. We record a charge-off on a conventional mortgage loan against the loan loss allowance upon the occurrence of a confirming event. Confirming events include, but are not limited to, the settlement of a claim against any of the credit enhancements, delinquency in excess of 180 days, and filing for bankruptcy protection. We charge-off the portion of the outstanding conventional mortgage loan balance in excess of the fair value of the underlying property, less cost to sell and adjusted for any available credit enhancements.

Derivatives and Hedging Activities. We record derivative instruments, related cash collateral (including initial and variation margin received or pledged/posted) and associated accrued interest on a net basis, by clearing agent and/or by counterparty when the netting requirements have been met, as either derivative assets or derivative liabilities at their estimated fair values. For derivative instruments that meet the netting requirements, any excess cash collateral received or pledged is recognized as a derivative liability or derivative asset, respectively.

Cash flows associated with derivatives are reported as cash flows from operating activities in the statement of cash flows unless the derivatives contain financing elements, in which case they are reflected as cash flows from financing activities. Derivative instruments that include non-standard terms, or require an upfront cash payment, or both, often contain a financing element.

Designations. Each derivative is designated as one of the following:

(i) a qualifying fair-value hedge of the change in fair value of a recognized asset or liability, an unrecognized firm commitment, or a forecasted transaction (a fair-value hedge); or
(ii) a non-qualifying hedge (economic hedge) for asset/liability management purposes.

Derivatives are recorded beginning on the trade date and typically executed and designated in a qualifying hedging relationship at the same time as the acquisition of the hedged item. We may also designate the hedging relationship upon the Bank's commitment to disburse an advance, purchase financial instruments, or trade a consolidated obligation in which settlement occurs within the shortest period of time possible for the type of instrument based on market settlement conventions.

Accounting for Qualifying Hedges. Hedging relationships must meet certain criteria including, but not limited to, formal documentation of the hedging relationship and an expectation to be highly effective to qualify for hedge accounting. Two approaches to hedge accounting include:

(i) Long-haul hedge accounting - The application of long-haul hedge accounting requires us to assess (both at the hedge's inception and at least quarterly) whether the derivatives used in hedging transactions are highly effective in offsetting changes in the fair value of hedged items or forecasted transactions and whether those derivatives may be expected to remain highly effective in future periods; or
(ii) Shortcut hedge accounting - Transactions that meet certain criteria qualify for the shortcut method of hedge accounting in which an assumption can be made that the entire change in fair value of a hedged item due to changes in the benchmark rate equates to the entire change in fair value of the related derivative. Therefore, the derivative is considered to be perfectly effective in achieving offsetting changes in the fair value of the hedged asset or liability attributable to the hedged risk.

Beginning January 1, 2019, changes in the fair value of a derivative that is designated and qualifies as a fair-value hedge, along with changes in the fair value of the hedged asset or liability that are attributable to the hedged risk, are recorded in net interest income in the same line as the earnings effect of the hedged item.

Prior to January 1, 2019, any hedge ineffectiveness (which represented the amount by which the change in the fair value of the derivative differed from the change in the fair value of the hedged item attributable to the hedged risk) was recorded in other income as net gains (losses) on derivatives and hedging activities.

For more information on the change in presentation of gains (losses) on our derivatives in qualifying hedge relationships, see *Note 2 - Recently Adopted and Issued Accounting Guidance*.

<u>*Accounting for Non-Qualifying Hedges.*</u> An economic hedge is defined as a derivative that hedges specific or non-specific underlying assets, liabilities, or firm commitments and does not qualify, or was not designated, for hedge accounting. As a result, we recognize only the net interest settlements and the change in fair value of these derivatives in other income as net gains (losses) on derivatives and hedging activities with no offsetting fair-value adjustments in earnings for the hedged assets, liabilities, or firm commitments. An economic hedge by definition, therefore, introduces the potential for earnings variability.

<u>*Accrued Interest Receivables and Payables.*</u> The difference between the interest receivable and payable on a derivative designated as a qualifying hedge is recognized as an adjustment to the income or expense of the designated hedged item.

<u>*Discontinuance of Hedge Accounting.*</u> We discontinue hedge accounting prospectively when: (i) the hedging relationship ceases to be highly effective; (ii) the derivative and/or the hedged item expires or is sold, terminated, or exercised; (iii) a hedged firm commitment no longer meets the definition of a firm commitment; or (iv) we elect to discontinue hedge accounting.

When hedge accounting is discontinued, we either terminate the derivative or continue to carry the derivative at its fair value, cease to adjust the hedged asset or liability for changes in fair value and amortize the cumulative basis adjustment on the hedged item into interest income over the remaining life of the hedged item using a level-yield methodology.

<u>*Embedded Derivatives.*</u> We may issue consolidated obligations, disburse advances, or purchase financial instruments in which a derivative instrument is embedded. In order to determine whether an embedded derivative must be bifurcated from the host instrument and separately valued, we must assess, upon execution of the transaction, whether the economic characteristics of the embedded derivative are clearly and closely related to the economic characteristics of the remaining component of the consolidated obligation, advance or purchased financial instrument (the host contract) and whether a separate, non-embedded instrument with the same terms as the embedded instrument would meet the definition of a derivative instrument.

If we determine that (i) the embedded derivative has economic characteristics that are not clearly and closely related to the economic characteristics of the host contract and (ii) a separate, stand-alone instrument with the same terms would qualify as a derivative instrument, the embedded derivative is separated from the host contract, carried at fair value, and designated as a stand-alone derivative instrument pursuant to an economic hedge, and the host contract is accounted for based on the guidance applicable to instruments of that type that are not hedged. However, if (i) the entire contract (the host contract and the embedded derivative) is required to be measured at fair value, with changes in fair value reported in earnings (such as an investment security classified as trading), or (ii) we cannot reliably identify and measure the embedded derivative for purposes of separating that derivative from its host contract, the entire contract is carried at fair value, and no portion of the contract is designated as a hedging instrument.

Financial Instruments Meeting Netting Requirements. We present certain financial instruments, including our derivative asset and liability positions as well as cash collateral received or pledged, on a net basis when we have a legal right of offset and all other requirements for netting are met (collectively referred to as the netting requirements).

The net exposure for these financial instruments can change on a daily basis; therefore, there may be a delay between the time a change in the exposure is identified and additional collateral is requested, and the time the additional collateral is received or pledged. Likewise, there may be a delay before excess collateral is returned. For derivative instruments that meet the netting requirements, any excess cash collateral received or pledged is recognized as a derivative liability or derivative asset, respectively. Additional information regarding these transactions is provided in *Note 9 - Derivatives and Hedging Activities.*

Premises, Software, and Equipment. We record premises, software, and equipment at cost, less accumulated depreciation and amortization, and compute depreciation and amortization using the straight-line method over their respective estimated useful lives, which range from 3 to 40 years. We capitalize improvements and major renewals, but expense maintenance and repairs when incurred. We depreciate building improvements using the straight-line method over the estimated useful life of the improvement. In addition, we capitalize software development costs for internal use software with an estimated economic useful life of at least one year. If capitalized, we use the straight-line method for computing amortization. We include any gain or loss on disposal (other than abandonment) of premises, software, and equipment in other income. Any loss on abandonment is included in other operating expenses.

Consolidated Obligations. Consolidated obligations are recorded at amortized cost, adjusted for concessions, accretion of discounts, amortization of premiums, principal payments, and fair-value hedging basis adjustments.

Discounts and Premiums. We amortize or accrete the discounts and premiums as well as hedging basis adjustments to interest expense using a level-yield methodology over the term to contractual maturity of the corresponding CO bonds. When we prepay a CO bond, a proportionate share of any remaining premium or discount is recognized.

Concessions. Concessions are paid to dealers in connection with the issuance of certain consolidated obligations. The Office of Finance prorates the amount of our concession based upon the percentage of the debt issued on our behalf. We record concessions paid on consolidated obligations as a direct deduction from their carrying amounts, consistent with the presentation of discounts on consolidated obligations. The concessions are deferred and amortized, using a level-yield methodology, to interest expense over the term to contractual maturity of the corresponding consolidated obligations. When we prepay a CO bond, a proportionate share of any remaining concession is recognized.

Mandatorily Redeemable Capital Stock. When a member withdraws or attains non-member status by merger or acquisition, charter termination, relocation or other involuntary termination from membership, the member's shares are then subject to redemption, at which time a five-year redemption period commences. Since the shares meet the definition of a mandatorily redeemable financial instrument, the shares are reclassified from capital to liabilities as MRCS at estimated fair value, which is equal to par value. Dividends declared on shares classified as a liability are accrued at the expected dividend rate and reported as interest expense.

We reclassify MRCS from liabilities to capital when non-members subsequently become members through either acquisition, merger, or election. After the reclassification, dividends declared on that capital stock are no longer classified as interest expense.

Employee Retirement and Deferred Compensation Plans. We recognize the required contribution to the DB Plan ratably over the plan year to which it relates. Without a prefunding election, any contribution made in excess of the minimum required contribution is recorded as an expense in the quarterly reporting period in which the contribution is made; with a prefunding election, such excess contribution is recorded as a prepaid asset.

Restricted Retained Earnings. In accordance with the Bank's JCE Agreement, we allocate 20% of our net income each quarter to a separate restricted retained earnings account until the balance of that account equals at least 1% of the average balance of our outstanding consolidated obligations for the previous quarter.

Gains on Litigation Settlements. Litigation settlement gains, net of related legal fees and litigation expenses, are recorded in other income when realized. A litigation settlement gain is considered realized when we receive cash or assets that are readily convertible to known amounts of cash or claims to cash. In addition, a settlement gain is considered realized when we enter into a signed agreement not subject to appeal, the counterparty has the ability to pay, and the amount to be received can be reasonably estimated. Prior to being realized, we consider potential litigation settlement gains to be gain contingencies and, therefore, they are not recorded in the statement of income.

Finance Agency Expenses. The portion of the Finance Agency's expenses and working capital fund not allocated to Freddie Mac and Fannie Mae is allocated among the FHLBanks as assessments, which are based on the ratio of each FHLBank's minimum required regulatory capital to the aggregate minimum required regulatory capital of every FHLBank. We record our share of these assessments in other expenses.

Office of Finance Expenses. Our proportionate share of the Office of Finance's operating and capital expenditures is calculated based upon two components as follows: (i) two-thirds based on our share of total consolidated obligations outstanding and (ii) one-third based on equal pro rata allocation. We record our share of these expenditures in other expenses.

Cash Flows. We consider cash and due from banks on the statement of condition as cash and cash equivalents within the statement of cash flows because of their highly liquid nature. Federal funds sold, securities purchased under agreements to resell, and interest-bearing deposits are not treated as cash and cash equivalents, but instead are treated as short-term investments. Accordingly, their associated cash flows are reported in the investing activities section of the statement of cash flows.

Note 2 - Recently Adopted and Issued Accounting Guidance

Recently Adopted Accounting Guidance.

Leases (ASU 2016-02). On February 25, 2016, the FASB issued guidance that requires a lessee, in an operating or finance lease, 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 a lease with a term of 12 months or less, a lessee is permitted to make an accounting policy election not to recognize a lease asset and lease liability. Under previous guidance, a lessee was not required to recognize a lease asset and lease liability arising from an operating lease on the statement of condition. While this guidance does not fundamentally change lessor accounting, some changes have been made to align that guidance with the lessee guidance and other areas within GAAP.

This guidance was effective for the interim and annual periods beginning on January 1, 2019. Upon adoption of this guidance on a prospective basis, we reported higher assets and liabilities as a result of including right-of-use assets and lease liabilities on the statement of condition, but its effect on our financial condition, results of operations, and cash flows was not material.

Premium Amortization on Purchased Callable Debt Securities (ASU 2017-08). On March 30, 2017, the FASB issued guidance to shorten the amortization period for certain callable debt securities purchased at a premium. Specifically, the guidance requires the premium to be amortized to the earliest call date. No change is required for securities purchased at a discount, which continue to be amortized to their contractual maturities.

This guidance was effective for the interim and annual periods beginning on January 1, 2019. The adoption of this guidance had no effect on our financial condition, results of operations, or cash flows.

Targeted Improvements to Accounting for Hedging Activities (ASU 2017-12). On August 28, 2017, the 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, along with the change in the fair value of the hedged item attributable to the hedged risk, be presented in the same income statement line that is used to present the earnings effect of the hedged item.

This guidance was effective for the interim and annual periods beginning on January 1, 2019. The adoption of this guidance had no effect on our financial condition, net income, or cash flows. However, the adoption resulted in a prospective change in the statement of income for qualifying fair-value hedging relationships in which the gains and losses resulting from the changes in the fair value of the hedging instruments and the changes in the fair value of the associated hedged items attributable to the hedged risk are reported in interest income instead of in other income. For the year ended December 31, 2019, a net loss of $23,515 was reported in interest income.

Inclusion of SOFR OIS Rate as a Benchmark Interest Rate for Hedge Accounting Purposes (ASU 2018-16). On October 25, 2018, to facilitate the LIBOR to SOFR transition, the FASB issued guidance permitting the use of the OIS rate based on SOFR as an eligible U.S. benchmark interest rate for hedge accounting purposes.

This guidance was effective for the interim and annual periods beginning on January 1, 2019, concurrent with the adoption of ASU 2017-12. The adoption of this guidance had no effect on our financial condition, results of operations, or cash flows.

Recently Issued Accounting Guidance.

Measurement of Credit Losses on Financial Instruments (ASU 2016-13). On June 16, 2016, the FASB issued guidance replacing the current incurred loss model. The guidance requires entities to measure expected credit losses based on consideration of a broad range of relevant information, including historical experience, current conditions, and reasonable and supportable forecasts that affect the collectability of the reported amount of the financial instrument.

This guidance became effective for the interim and annual periods beginning on January 1, 2020. The guidance should be applied using a modified-retrospective approach whereby a cumulative-effect adjustment is recorded to retained earnings as of the beginning of the period of adoption.

In spite of the requirement to measure expected credit losses over the estimated life of our financial instruments, i.e. advances, mortgage loans, investment securities, securities purchased under agreements to resell, and federal funds sold, the adoption of this guidance had no effect on our allowance for credit losses, and therefore no effect on our financial condition, results of operations, or cash flows.

Changes to the Disclosure Requirements for Fair Value Measurement (ASU 2018-13). On August 28, 2018, the FASB issued guidance to update the disclosure requirements for fair value measurement. This guidance was issued as part of the FASB's disclosure framework project and is intended to improve disclosure effectiveness.

The guidance became effective for the interim and annual periods beginning on January 1, 2020. The adoption of this guidance will have an effect on our future disclosures, but had no effect on our financial condition, results of operations, or cash flows.

Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement that is a Service Contract (ASU 2018-15). On August 29, 2018, the FASB issued guidance on implementation costs incurred in a hosting arrangement that is a service contract. The guidance aligns the requirements for capitalizing such costs with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software and hosting arrangements that include an internal-use software license.

This guidance became effective for the interim and annual periods beginning on January 1, 2020. The adoption of this guidance on a prospective basis had no effect on our financial condition, results of operations, or cash flows.

Changes to the Disclosure Requirements for Defined Benefit Plans (ASU 2018-14). On August 28, 2018, the FASB issued guidance to modify the disclosure requirements for employers that sponsor defined benefit pension or other postretirement plans. This guidance was issued as part of the FASB's disclosure framework project and is intended to improve disclosure effectiveness.

The guidance is effective for the annual period ended December 31, 2020, and early adoption is permitted; however, we currently plan to adopt this guidance on the effective date. The adoption may have an effect on our disclosures, but will have no effect on our financial condition, results of operations, or cash flows.

($ amounts in thousands unless otherwise indicated)

Note 3 - Cash and Due from Banks

Compensating Balances. We maintain cash balances with commercial banks in return for certain services. These agreements contain no legal restrictions on the withdrawal of funds. The average cash balances for the years ended December 31, 2019, 2018, and 2017, were $19,420, $22,300, and $35,592, respectively.

Pass-through Deposit Reserves. We act as a pass-through correspondent for member institutions required to deposit reserves with the Federal Reserve Banks. The amounts reported as cash and due from banks at December 31, 2019 and 2018, include pass-through reserves deposited with the Federal Reserve Banks of $54,264 and $65,871, respectively.

Note 4 - Investment Securities

Trading Securities.

In 2019, the Bank began purchasing U.S. Treasury securities to enhance its liquidity and the balance of these securities at December 31, 2019 was $5,016,649.

Net Gains (Losses) on Trading Securities. The following table presents net gains (losses) on trading securities, excluding any offsetting effect of gains (losses) on the associated derivatives.

	Years Ended December 31, 2019	2018	2017
Net unrealized gains on trading securities held at period end	$ 30,705	$ —	$ —
Net realized gains on trading securities that sold during the period	2,291	—	—
Net gains on trading securities	$ 32,996	$ —	$ —

Available-for-Sale Securities.

Major Security Types. The following table presents our AFS securities by type of security.

December 31, 2019	Amortized Cost [(1)]	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
GSE and TVA debentures	$ 3,885,012	$ 41,840	$ —	$ 3,926,852
GSE MBS	4,509,653	51,200	(3,227)	4,557,626
Total AFS securities	$ 8,394,665	$ 93,040	$ (3,227)	$ 8,484,478
December 31, 2018				
GSE and TVA debentures	$ 4,239,622	$ 37,458	$ —	$ 4,277,080
GSE MBS	3,410,988	27,797	(12,269)	3,426,516
Total AFS securities	$ 7,650,610	$ 65,255	$ (12,269)	$ 7,703,596

(1) Includes adjustments made to the cost basis for accretion, amortization, collection of principal, and, if applicable, fair-value hedging basis adjustments. Carrying value equals estimated fair value.

($ amounts in thousands unless otherwise indicated)

Unrealized Loss Positions. The following table presents impaired AFS securities (i.e., in an unrealized loss position), aggregated by major security type and length of time that individual securities have been in a continuous unrealized loss position.

	Less than 12 months		12 months or more		Total	
December 31, 2019	**Estimated Fair Value**	**Unrealized Losses**	**Estimated Fair Value**	**Unrealized Losses**	**Estimated Fair Value**	**Unrealized Losses**
GSE MBS	$ 339,981	$ (1,134)	$ 519,446	$ (2,093)	$ 859,427	$ (3,227)
Total impaired AFS securities	$ 339,981	$ (1,134)	$ 519,446	$ (2,093)	$ 859,427	$ (3,227)
December 31, 2018						
GSE MBS	$ 1,256,816	$ (12,269)	$ —	$ —	$ 1,256,816	$ (12,269)
Total impaired AFS securities	$ 1,256,816	$ (12,269)	$ —	$ —	$ 1,256,816	$ (12,269)

Contractual Maturity. The amortized cost and estimated fair value of non-MBS AFS securities are presented below by contractual maturity. MBS are not presented by contractual maturity because their actual maturities will likely differ from their contractual maturities as borrowers have the right to prepay their obligations with or without prepayment fees.

	December 31, 2019		December 31, 2018	
Year of Contractual Maturity	**Amortized Cost**	**Estimated Fair Value**	**Amortized Cost**	**Estimated Fair Value**
Due in 1 year or less	$ 570,209	$ 571,588	$ 507,355	$ 507,832
Due after 1 year through 5 years	1,729,664	1,742,681	1,933,682	1,947,240
Due after 5 years through 10 years	1,489,144	1,514,978	1,646,892	1,668,409
Due after 10 years	95,995	97,605	151,693	153,599
Total non-MBS	3,885,012	3,926,852	4,239,622	4,277,080
Total MBS	4,509,653	4,557,626	3,410,988	3,426,516
Total AFS securities	$ 8,394,665	$ 8,484,478	$ 7,650,610	$ 7,703,596

Realized Gains and Losses.

There were no sales of AFS securities during the years ended December 31, 2019 or 2017. During the year ended December 31, 2018, for strategic, economic and operational reasons, we sold all of our AFS and HTM investments in private-label RMBS and ABS. Of the OTTI AFS securities sold in 2018, none were in an unrealized loss position. Proceeds from the AFS sales totaled $203,841, resulting in realized gains of $32,407 determined by the specific identification method.

As of December 31, 2019, we had no intention of selling any AFS securities in an unrealized loss position nor did we consider it more likely than not that we will be required to sell any of these securities before our anticipated recovery of each security's remaining amortized cost basis.

($ amounts in thousands unless otherwise indicated)

Held-to-Maturity Securities.

Major Security Types. The following table presents our HTM securities by type of security.

December 31, 2019	Amortized Cost [1]	Gross Unrecognized Holding Gains	Gross Unrecognized Holding Losses	Estimated Fair Value
MBS:				
Other U.S. obligations - guaranteed MBS	$ 3,059,875	$ 6,948	$ (13,217)	$ 3,053,606
GSE MBS	2,156,526	10,117	(4,043)	2,162,600
Total HTM securities	$ 5,216,401	$ 17,065	$ (17,260)	$ 5,216,206
December 31, 2018				
MBS:				
Other U.S. obligations - guaranteed MBS	$ 3,468,882	$ 11,034	$ (1,552)	$ 3,478,364
GSE MBS	2,204,838	7,673	(14,730)	2,197,781
Total HTM securities	$ 5,673,720	$ 18,707	$ (16,282)	$ 5,676,145

(1) Carrying value equals amortized cost, which includes adjustments made to the cost basis for accretion, amortization and collection of principal.

Unrealized Loss Positions. The following table presents impaired HTM securities (i.e., in an unrealized loss position), aggregated by major security type and length of time that individual securities have been in a continuous unrealized loss position.

	Less than 12 months		12 months or More		Total	
December 31, 2019	Estimated Fair Value	Unrealized Losses	Estimated Fair Value	Unrealized Losses	Estimated Fair Value	Unrealized Losses
MBS:						
Other U.S. obligations - guaranteed MBS	$ 656,398	$ (6,728)	$ 1,009,661	$ (6,489)	$ 1,666,059	$ (13,217)
GSE MBS	838,342	(2,195)	288,567	(1,848)	1,126,909	(4,043)
Total impaired HTM securities	$ 1,494,740	$ (8,923)	$ 1,298,228	$ (8,337)	$ 2,792,968	$ (17,260)
December 31, 2018						
MBS:						
Other U.S. obligations - guaranteed MBS	$ 829,121	$ (873)	$ 417,952	$ (679)	$ 1,247,073	$ (1,552)
GSE MBS	435,756	(890)	716,647	(13,840)	1,152,403	(14,730)
Total impaired HTM securities	$ 1,264,877	$ (1,763)	$ 1,134,599	$ (14,519)	$ 2,399,476	$ (16,282)

Contractual Maturity. MBS and ABS are not presented by contractual maturity because their actual maturities will likely differ from contractual maturities as certain borrowers have the right to prepay their obligations with or without prepayment fees.

Realized Gains and Losses. There were no sales of HTM securities during the years ended December 31, 2019 or 2017. During the year ended December 31, 2018, for strategic, economic and operational reasons, we sold all of our AFS and HTM investments in private-label RMBS and ABS. The amortized cost of the HTM securities sold totaled $41,271. Proceeds from the HTM sales totaled $41,226, resulting in realized losses of $45 determined by the specific identification method. For each of these HTM securities, we had previously collected at least 85% of the principal outstanding at the time of acquisition due to prepayments or scheduled payments over the term. As such, the sales were considered maturities for purposes of security classification.

($ amounts in thousands unless otherwise indicated)

As of December 31, 2019, we had no intention of selling any HTM securities nor did we consider it more likely than not that we will be required to sell any HTM securities in an unrealized loss position before our anticipated recovery of each security's remaining amortized cost basis.

Other-Than-Temporary Impairment.

OTTI Evaluation Process and Results - Private-label RMBS and ABS.

Results of OTTI Evaluation Process - Private-label RMBS and ABS. Prior to the decision to sell all of our private-label RMBS and ABS in 2018, we performed cash flow analyses to determine whether we expected to recover the entire amortized cost of each security. As a result of our analyses, we recognized credit losses during the years ended December 31, 2018 and 2017 of $0 and $207, respectively. During those periods, we determined that the unrealized losses on any remaining private-label RMBS and ABS were temporary as we expected to recover the entire amortized cost.

The following table presents a rollforward of the amounts related to credit losses recognized in earnings.

Credit Loss Rollforward	**2018**	**2017**
Balance at beginning of year	$ 44,935	$ 51,514
Additions:		
Additional credit losses for which OTTI was previously recognized [(1)]	—	207
Reductions:		
Credit losses on securities sold, matured, paid down or prepaid	(43,049)	—
Increases in cash flows expected to be collected (accreted as interest income over the remaining lives of the applicable securities)	(1,886)	(6,786)
Balance at end of year	$ —	$ 44,935

(1) Relates to all securities impaired prior to January 1, 2018, and 2017, respectively.

Evaluation Process and Results - All Other Investment Securities.

Other U.S. and GSE Obligations and TVA Debentures. For other U.S. obligations, GSE obligations, and TVA debentures, we determined that, based on current expectations, the strength of the issuers' guarantees through direct obligations of or explicit or implicit support from the United States government is sufficient to protect us from any losses. As a result, all of the gross unrealized losses as of December 31, 2019 are considered temporary.

($ amounts in thousands unless otherwise indicated)

Note 5 - Advances

We offer a wide range of fixed- and adjustable-rate advance products with various maturities, interest rates, payment characteristics and optionality. Adjustable-rate advances have interest rates that reset periodically at a fixed spread to LIBOR or another specified index, including SOFR. Longer-term advances may be available subject to market conditions for both fixed-rate and adjustable-rate products.

The following table presents advances outstanding by redemption term.

	December 31, 2019		December 31, 2018	
Redemption Term	**Amount**	**WAIR %**	**Amount**	**WAIR %**
Overdrawn demand and overnight deposit accounts	$ 37	3.99	$ —	—
Due in 1 year or less	11,791,716	1.85	15,595,985	2.47
Due after 1 year through 2 years	2,106,315	2.12	2,957,861	2.19
Due after 2 years through 3 years	2,505,693	2.16	2,444,486	2.46
Due after 3 years through 4 years	2,625,446	2.44	2,139,695	2.36
Due after 4 years through 5 years	4,076,103	2.08	1,977,925	2.76
Thereafter	9,166,357	1.89	7,713,409	2.41
Total advances, par value	32,271,667	1.98	32,829,361	2.44
Fair-value hedging basis adjustments, net	207,111		(106,499)	
Unamortized swap termination fees associated with modified advances, net of deferred prepayment fees	1,330		4,806	
Total advances	$ 32,480,108		$ 32,727,668	

We offer our members certain advances that provide them the right, at predetermined future dates, to call (i.e., prepay) the advance prior to maturity without incurring prepayment or termination fees. Borrowers typically exercise their call options for fixed-rate advances when interest rates decline. We also offer certain adjustable-rate advances that may be contractually prepaid by the borrower at the interest-rate reset date without incurring prepayment or termination fees. All other advances may only be prepaid by paying a fee that is sufficient to make us financially indifferent to the prepayment of the advance. We also offer putable advances. Under the terms of a putable advance, we retain the right to extinguish or put the fixed-rate advance to the member on predetermined future dates and offer replacement funding at current market rates, subject to certain conditions.

The following table presents advances outstanding by the earlier of the redemption date or the next call date and next put date.

	Earlier of Redemption or Next Call Date		Earlier of Redemption or Next Put Date	
	December 31, 2019	**December 31, 2018**	**December 31, 2019**	**December 31, 2018**
Overdrawn demand and overnight deposit accounts	$ 37	$ —	$ 37	$ —
Due in 1 year or less	18,497,813	22,574,897	14,560,066	15,595,985
Due after 1 year through 2 years	1,514,015	2,061,411	3,329,315	3,682,461
Due after 2 years through 3 years	2,127,903	1,356,186	3,254,093	3,660,486
Due after 3 years through 4 years	2,117,546	1,581,905	3,025,551	2,547,995
Due after 4 years through 5 years	2,454,103	1,425,525	3,481,353	2,633,030
Thereafter	5,560,250	3,829,437	4,621,252	4,709,404
Total advances, par value	$ 32,271,667	$ 32,829,361	$ 32,271,667	$ 32,829,361

Captive insurance companies that were admitted as FHLBank members prior to September 12, 2014, and do not meet the definition of "insurance company" or fall within another category of institution that is eligible for FHLBank membership under the Final Membership Rule, shall have their memberships terminated no later than February 19, 2021. Prior to termination, new or renewed extensions of credit to such members will be subject to certain restrictions relating to maturity dates and the ratio of advances to the captive insurer's total assets and may be subject to additional restrictions at our discretion. The outstanding advances to these captive insurers mature on various dates through 2025.

($ amounts in thousands unless otherwise indicated)

Advance Concentrations. We lend to members according to Federal statutes, including the Bank Act. The Bank Act requires each FHLBank to hold, or have access to, collateral to fully secure its advances. At December 31, 2019 and 2018, our top five borrowers held 42% and 40%, respectively, of total advances outstanding, at par. As security for the advances to these and our other borrowers, we held, or had access to, collateral with an estimated fair value at December 31, 2019 and 2018 that was well in excess of the advances outstanding on those dates, respectively. For information related to our credit risk on advances and allowance methodology for credit losses, see *Note 7 - Allowance for Credit Losses*.

Note 6 - Mortgage Loans Held for Portfolio

Mortgage loans held for portfolio consist of residential loans acquired from our members through the MPP and participating interests purchased in 2012 - 2014 from the FHLBank of Topeka in residential loans that were originated by certain of its PFIs through their participation in the MPF Program offered by the FHLBank of Chicago. The balances also reflect the sale of a 90% participating interest in a $100 million MCC of certain newly acquired MPP loans to another FHLBank in 2016. The MPP and MPF Program loans are fixed rate and either credit enhanced by PFIs, if conventional, or guaranteed or insured by government agencies.

The following tables present information on mortgage loans held for portfolio by term, type and product.

Term	December 31, 2019	December 31, 2018
Fixed-rate long-term mortgages	$ 9,677,008	$ 10,145,476
Fixed-rate medium-term [(1)] mortgages	908,526	992,059
Total mortgage loans held for portfolio, UPB	10,585,534	11,137,535
Unamortized premiums	231,807	251,778
Unamortized discounts	(2,158)	(2,415)
Fair-value hedging basis adjustments, net	154	(1,320)
Allowance for loan losses	(300)	(600)
Total mortgage loans held for portfolio, net	$ 10,815,037	$ 11,384,978

(1) Defined as a term of 15 years or less at origination.

Type	December 31, 2019	December 31, 2018
Conventional	$ 10,263,249	$ 10,769,980
Government-guaranteed or -insured	322,285	367,555
Total mortgage loans held for portfolio, UPB	$ 10,585,534	$ 11,137,535

Product	December 31, 2019	December 31, 2018
MPP	$ 10,363,081	$ 10,875,079
MPF Program	222,453	262,456
Total mortgage loans held for portfolio, UPB	$ 10,585,534	$ 11,137,535

For information related to our credit risk on mortgage loans and allowance methodology for loan losses, see *Note 7 - Allowance for Credit Losses*.

Note 7 - Allowance for Credit Losses

We have established a methodology to determine the allowance for credit losses for each of our portfolio segments: credit products (advances, letters of credit, and other extensions of credit to members); term securities purchased under agreements to resell and term federal funds sold (including interest-bearing demand deposit accounts); government-guaranteed or -insured mortgage loans held for portfolio; and conventional mortgage loans held for portfolio.

Credit Products. We manage our exposure to credit products through an integrated approach that generally includes establishing a credit limit for each borrower, and an ongoing review of each borrower's financial condition, coupled with conservative collateral/lending policies to limit the risk of loss while balancing the borrower's needs for a reliable source of funding. In addition, we lend to eligible borrowers in accordance with federal statutes and Finance Agency regulations. Specifically, we comply with the Bank Act, which requires us to obtain sufficient collateral to fully secure credit products. We evaluate and update our collateral guidelines, as necessary, based on current market conditions.

We accept certain investment securities, residential mortgage loans, deposits, and other real estate-related assets as collateral. In addition, certain members that qualify as CFIs are eligible to utilize expanded statutory collateral provisions for small business and agriculture loans. Under the Bank Act, our members' capital stock in our Bank serves as additional security. Collateral arrangements may vary depending upon borrower credit quality, financial condition and performance; borrowing capacity; and overall credit exposure to the borrower. To ensure that we are sufficiently protected, we evaluate and determine whether a member may retain physical possession of its collateral that is pledged to us or must specifically deliver the collateral to us or our safekeeping agent. We perfect our security interest in all pledged collateral and we can also require additional or substitute collateral to protect our security interest.

We determine the estimated value of the collateral required to secure each member's credit products by applying collateral discounts, or haircuts, to the market value or UPB of the collateral, as applicable. Using a risk-based approach, we consider the amount and quality of the collateral pledged and the borrower's financial condition to be the primary indicators of credit quality on the borrower's credit products. At December 31, 2019 and 2018, we had rights to collateral on a borrower-by-borrower basis with an estimated value equal to or in excess of our outstanding extensions of credit.

At December 31, 2019 and 2018, we did not have any credit products that were past due, on non-accrual status, or considered impaired. In addition, there were no TDRs related to credit products during the years ended December 31, 2019, 2018, or 2017.

Based upon the collateral held as security, our credit extension and collateral policies, our credit analysis and the repayment history on credit products, we have not recorded any allowance for credit losses on credit products, and no liability was recorded to reflect an allowance for credit losses for off-balance sheet credit exposures. For additional information about off-balance sheet credit exposure, see *Note 18 - Commitments and Contingencies*.

Interest-Bearing Deposits, Term Securities Purchased Under Agreements to Resell and Term Federal Funds Sold. Except for interest-bearing deposits, which may be redeemed at any time during business hours, these assets generally have maturities ranging from 1 to 270 days. Given their short-term nature and the credit quality of the counterparties, credit risk is minimal and, as such, we have not established an allowance for credit losses for these products.

Government-Guaranteed or -Insured Mortgage Loans. We invest in fixed-rate mortgage loans that are guaranteed or insured by the FHA, Department of Veterans Affairs, Rural Housing Service of the Department of Agriculture, or HUD. The servicer provides and maintains a guaranty or insurance from the applicable government agency. The servicer is responsible for compliance with all government agency requirements and for obtaining the benefit of the applicable guaranty or insurance with respect to defaulted government-guaranteed or -insured mortgage loans. Any losses incurred on these loans that are not recovered from the insurer or guarantor are absorbed by the servicers. Therefore, we did not establish an allowance for credit losses for government-guaranteed or -insured mortgage loans at December 31, 2019 or 2018.

Conventional Mortgage Loans. We invest in conventional mortgage loans primarily through the MPP. Additionally, we hold participating interests in conventional mortgage loans that were originated by PFIs of the FHLBank of Topeka through the MPF Program.

Conventional MPP. Our management of credit risk considers the several layers of loss protection that are defined in our agreements with the PFIs. Our loss protection consists of the following loss layers, in order of priority, (i) borrower equity; (ii) PMI up to coverage limits (when applicable for the acquisition of mortgages with an initial LTV ratio of over 80% at the time of purchase); (iii) available funds remaining in the LRA; and (iv) SMI coverage (as applicable) purchased by the seller from a third-party provider naming the Bank as the beneficiary, up to the policy limits. Any losses not absorbed by the loss protection are borne by the Bank.

($ amounts in thousands unless otherwise indicated)

For conventional mortgage loans under our original MPP, credit enhancement is provided through allocating a portion of the periodic interest payments on the loans into an LRA. In addition, the PFI selling conventional loans to us is required to purchase SMI, paid through periodic interest payments, as an enhancement to cover credit losses over and above those covered by the LRA, but the covered losses are limited to the terms of the policy.

Beginning with Advantage MPP, we discontinued the use of SMI for all loan purchases and replaced it with a fixed LRA. The fixed LRA is funded with a portion of each loan's purchase proceeds.

The LRA is segregated by pools of loans and used to cover losses in a pool beyond those covered by an individual loan's PMI (as applicable), but is limited to covering losses of that specific pool only. Any excess funds are ultimately distributed to the member in accordance with a step-down schedule that is established upon execution of an MCC, subject to performance of the related pool.

The following table presents the activity in the LRA, which is reported in other liabilities.

LRA Activity	**2019**	**2018**	**2017**
Liability, beginning of year	$ 174,096	$ 148,715	$ 125,683
Additions	15,435	26,662	25,350
Claims paid	(302)	(508)	(617)
Distributions to PFIs	(2,644)	(773)	(1,701)
Liability, end of year	$ 186,585	$ 174,096	$ 148,715

We determine our allowance for loan losses based on our best estimate of probable losses over the loss emergence period. We use the MPP portfolio's delinquency migration (movement of loans through the various stages of delinquency) to determine whether a loss event is probable. Once a loss event is deemed to be probable, we utilize a systematic methodology that incorporates all credit enhancements and servicer advances to establish the allowance for loan losses. Although we do not reserve for any estimated losses that would be recovered from the credit enhancements, as part of the estimate of the recoverable credit enhancements, we evaluate the recovery and collectability of amounts under our PMI/SMI policies.

Conventional MPF Program. Our management of credit risk in the MPF Program considers the several layers of loss protection that are defined in agreements among the FHLBank of Topeka and its PFIs. The availability of loss protection may differ slightly among MPF products. The loss layers, in order of priority, are (i) borrower equity; (ii) PMI, (when applicable for the purchase of mortgages with an initial LTV ratio of over 80% at the time of purchase); (iii) FLA, which represents the first layer or portion of credit losses that we absorb after the borrower's equity, PMI, and recoverable CE fees; and (iv) the CE Obligation of a PFI, which absorbs losses in excess of the FLA in order to limit our loss exposure to that of an investor in an MBS deemed to be investment-grade. Any losses not absorbed by the loss protection are shared among the participating FHLBanks based upon the applicable percentage of participation.

PFIs retain a portion of the credit risk on the loans they sell by providing credit enhancement through a direct liability to pay credit losses up to a specified amount. PFIs are paid a CE fee for assuming credit risk and, in some instances, all or a portion of the CE fee may be performance-based. To the extent the Bank is responsible for losses in a pool, it may be able to recapture CE fees paid to that PFI to offset those losses. All CE fees are paid monthly based on the remaining UPB of the loans in a pool.

The allowance for MPF Program conventional loans is determined by analyzing the portfolio's delinquency migration and charge-offs over a historical period to determine the probability of default and loss severity rates. The analysis of conventional loans evaluated for impairment (i) considers loan pool-specific attribute data; (ii) applies estimated default probabilities and loss severities; and (iii) incorporates the applicable credit enhancements in order to determine our best estimate of probable losses.

Collectively Evaluated Mortgage Loans.

MPP. Conventional loans current to 179 days past due are collectively evaluated for impairment at the pool level using a recognized third-party credit model to estimate potential ranges of credit loss exposure. The loss projection is based upon distinct underlying loan characteristics, including loan vintage (year of origination), geographic location, credit support features and other factors, and a projected migration of loans through the various stages of delinquency. Seriously delinquent conventional loans past due 180 days or more are also collectively evaluated for impairment at the pool level based on current and historical information and events and are charged-off in accordance with our policy.

MPF Program. Our loan loss analysis includes collectively evaluating conventional loans for impairment within each pool. The measurement of the allowance for loan losses consists of (i) evaluating homogeneous pools of current and delinquent mortgage loans; and (ii) estimating credit losses in the pool based upon the default probability ratios, loss severity rates, FLAs and CE obligations. Additional analyses include consideration of various data observations such as past performance, current performance, loan portfolio characteristics, collateral-related characteristics, industry data and prevailing economic conditions.

Individually Evaluated Mortgage Loans.

Certain conventional mortgage loans that are impaired, primarily TDRs, are specifically identified for purposes of calculating the allowance for loan losses. The measurement of our allowance for individually evaluated loans considers loan-specific attribution data similar to homogeneous pools of delinquent loans evaluated on a collective basis, including the use of loan-level property values from a third-party.

We also individually evaluate any remaining exposure to delinquent MPP conventional loans paid in full by the servicers. An estimate of the loss, if any, is equal to the estimated cost associated with maintaining and disposing of the property (which includes the UPB, interest owed on the delinquent loan to date, and estimated costs associated with disposing of the collateral) less the estimated fair value of the collateral (net of estimated selling costs) and the amount of credit enhancements including the PMI, LRA and SMI. The fair value of the collateral is obtained from HUD statements, sales listings or other evidence of current expected liquidation amounts.

Interest income recognized on impaired MPP conventional loans was not material for the periods presented.

($ amounts in thousands unless otherwise indicated)

Credit Quality Indicator and Other Delinquency Statistics. The tables below present the key credit quality indicators for our mortgage loans held for portfolio.

Delinquency Status as of December 31, 2019	Conventional	Government	Total
Past due:			
30-59 days	$ 44,479	$ 7,652	$ 52,131
60-89 days	9,868	2,189	12,057
90 days or more	10,668	3,069	13,737
Total past due	65,015	12,910	77,925
Total current	10,470,495	314,638	10,785,133
Total mortgage loans, recorded investment (1)	$ 10,535,510	$ 327,548	$ 10,863,058

Delinquency Status as of December 31, 2018	Conventional	Government	Total
Past due:			
30-59 days	$ 36,594	$ 9,352	$ 45,946
60-89 days	7,904	2,870	10,774
90 days or more	13,764	1,697	15,461
Total past due	58,262	13,919	72,181
Total current	11,003,243	359,758	11,363,001
Total mortgage loans, recorded investment (1)	$ 11,061,505	$ 373,677	$ 11,435,182

Other Delinquency Statistics as of December 31, 2019	Conventional	Government	Total
In process of foreclosure (2)	$ 2,071	$ —	$ 2,071
Serious delinquency rate (3)	0.10 %	0.94 %	0.13 %
Past due 90 days or more still accruing interest (4)	$ 10,127	$ 3,069	$ 13,196
On non-accrual status	$ 1,063	$ —	$ 1,063

Other Delinquency Statistics as of December 31, 2018	Conventional	Government	Total
In process of foreclosure (2)	$ 6,836	$ —	$ 6,836
Serious delinquency rate (3)	0.12 %	0.45 %	0.14 %
Past due 90 days or more still accruing interest (4)	$ 12,849	$ 1,697	$ 14,546
On non-accrual status	$ 1,762	$ —	$ 1,762

(1) The recorded investment in a loan is the UPB of the loan, adjusted for accrued interest, net of any unamortized premiums or discounts (which may include the basis adjustment related to any gain or loss on a delivery commitment prior to being funded) and direct charge-offs. The recorded investment is not net of any valuation allowance.

(2) Includes loans for which the decision of foreclosure or similar alternative, such as pursuit of deed-in-lieu of foreclosure, has been reported. Loans in process of foreclosure are included in past due categories depending on their delinquency status, but are not necessarily considered to be on non-accrual status.

(3) Represents loans 90 days or more past due (including loans in process of foreclosure) expressed as a percentage of the total recorded investment in mortgage loans. The percentage excludes principal and interest amounts previously paid in full by the servicers on conventional loans that are pending resolution of potential loss claims. Our servicers repurchase seriously delinquent government loans, including FHA loans, when certain criteria are met.

(4) Although our past due scheduled/scheduled MPP loans are classified as loans past due 90 days or more based on the loan's delinquency status, we do not consider these loans to be on non-accrual status.

Qualitative Factors. We also assess qualitative factors in the estimation of loan losses. These factors represent a subjective management judgment based on facts and circumstances that exist as of the reporting date that is not ascribed to any specific measurable economic or credit event and is intended to address other inherent losses that may not otherwise be captured in our methodology.

($ amounts in thousands unless otherwise indicated)

Allowance for Loan Losses on Mortgage Loans. Our loan loss analysis also compares, or benchmarks, our estimated losses, after credit enhancements, to actual losses occurring in the portfolio. As a result of our methodology, our allowance for loan losses reflects our best estimate of the probable losses in our original MPP, Advantage MPP, and MPF Program portfolios.

The following table presents the components of the allowance for loan losses, including the credit enhancement waterfall for MPP.

Components of Allowance for Loan Losses	**December 31, 2019**	**December 31, 2018**
MPP estimated incurred losses remaining after borrower's equity, before credit enhancements [(1)]	$ 4,410	$ 3,505
Portion of estimated incurred losses recoverable from credit enhancements:		
PMI	(667)	(627)
LRA [(2)]	(2,581)	(1,137)
SMI	(927)	(1,256)
Total portion recoverable from credit enhancements	(4,175)	(3,020)
Allowance for unrecoverable PMI/SMI	15	15
Allowance for MPP loan losses	250	500
Allowance for MPF Program loan losses	50	100
Allowance for loan losses	$ 300	$ 600

(1) Based on a loss emergence period of 24 months.

(2) Amounts recoverable are limited to (i) the estimated losses remaining after borrower's equity and PMI and (ii) the remaining balance in each pool's portion of the LRA. The remainder of the total LRA balance is available to cover any losses not yet incurred and to distribute any excess funds to the PFIs.

The tables below present a rollforward of our allowance for loan losses, the allowance for loan losses by impairment methodology, and the recorded investment in mortgage loans by impairment methodology.

Rollforward of Allowance for Loan Losses	**2019**	**2018**	**2017**
Balance, beginning of year	$ 600	$ 850	$ 850
Charge-offs	(137)	(444)	(647)
Recoveries	126	425	596
Provision for (reversal of) loan losses	(289)	(231)	51
Balance, end of year	$ 300	$ 600	$ 850

Allowance for Loan Losses by Impairment Methodology	**December 31, 2019**	**December 31, 2018**
Conventional loans collectively evaluated for impairment	$ 265	$ 563
Conventional loans individually evaluated for impairment [(1)]	35	37
Total allowance for loan losses	$ 300	$ 600

Recorded Investment by Impairment Methodology	**December 31, 2019**	**December 31, 2018**
Conventional loans collectively evaluated for impairment	$ 10,522,243	$ 11,048,075
Conventional loans individually evaluated for impairment [(1)]	13,267	13,430
Total recorded investment in conventional loans	$ 10,535,510	$ 11,061,505

(1) The recorded investment in our MPP conventional loans individually evaluated for impairment excludes principal previously paid in full by the servicers as of December 31, 2019 and 2018 of $1,318 and $1,552, respectively, that remains subject to potential claims by those servicers for any losses resulting from past or future liquidations of the underlying properties. However, the MPP allowance for loan losses as of December 31, 2019 and 2018 includes $5 and $16, respectively, for these potential claims.

($ amounts in thousands unless otherwise indicated)

Note 8 - Premises, Software and Equipment

The following table presents the types of our premises, software and equipment.

Type	December 31, 2019	December 31, 2018
Premises	$ 15,828	$ 15,059
Computer software	45,049	43,186
Data processing equipment	4,975	5,054
Furniture and equipment	6,294	5,237
Other	703	724
Premises, software and equipment, in service	72,849	69,260
Accumulated depreciation and amortization	(41,133)	(34,789)
Premises, software and equipment, in service, net	31,716	34,471
Capitalized assets in progress	4,833	2,727
Premises, software and equipment, net	$ 36,549	$ 37,198

The depreciation and amortization expense for premises, software and equipment for the years ended December 31, 2019, 2018, and 2017 was $6,879, $6,230, and $5,965, respectively, including amortization of computer software costs of $4,983, $4,237, and $4,276, respectively.

Note 9 - Derivatives and Hedging Activities

Nature of Business Activity. We are exposed to interest-rate risk primarily from the effect of changes in market interest rates on our interest-earning assets and our interest-bearing liabilities that finance those assets. The goal of our interest-rate risk management strategies is not to eliminate interest-rate risk, but to manage it within appropriate limits. To mitigate the risk of loss, we have established policies and procedures, which include guidelines on the amount of exposure to interest rate changes that we are willing to accept. In addition, we monitor the risk to our interest income, net interest margin and average maturity of interest-earning assets and interest-bearing liabilities.

Consistent with Finance Agency regulation, we enter into derivatives to (i) manage the interest-rate risk exposures inherent in our otherwise unhedged assets and funding positions, (ii) achieve our risk management objectives, and (iii) act as an intermediary between our members and counterparties. Finance Agency regulation and our Enterprise Risk Management Policy prohibit trading in, or the speculative use of, these derivative instruments and limit credit risk arising from these instruments. However, the use of derivatives is an integral part of our financial management strategy.

We use derivative financial instruments when they are considered to be the most cost-effective alternative to achieve our financial and risk management objectives. The most common ways in which we use derivatives are to:

- reduce funding costs by executing a derivative concurrently with the issuance of a consolidated obligation as the cost of a combined funding structure can be lower than the cost of a comparable CO bond;
- reduce the interest-rate sensitivity and repricing gaps of assets and liabilities;
- preserve a favorable interest-rate spread between the yield of an asset (e.g., an advance) and the cost of the related liability (e.g., CO bond used to fund advance);
- mitigate the adverse earnings effects of the shortening or extension of the duration of certain assets (e.g., advances or mortgage assets) and liabilities;
- protect the value of existing asset and liability positions or of commitments and forecasted transactions;
- manage embedded options in assets and liabilities; and
- manage our overall asset/liability structure.

We reevaluate our hedging strategies from time to time and, consequently, we may adopt new strategies or change our hedging techniques.

We transact most of our derivatives with large banks and major broker-dealers. Some of these banks and broker-dealers or their affiliates buy, sell, and distribute consolidated obligations. We are not a derivatives dealer and thus do not trade derivatives for short-term profit. Over-the-counter derivative transactions may be either executed with a counterparty (uncleared derivatives) or cleared through a Futures Commission Merchant (i.e., clearing agent) with a clearinghouse (cleared derivatives). Once a derivative transaction has been accepted for clearing by a clearinghouse, the derivative transaction is novated, and the executing counterparty is replaced with the clearinghouse.

Types of Derivatives. We use the following derivative instruments to reduce funding costs and to manage our exposure to interest-rate risks inherent in the normal course of business.

Interest-Rate Swaps. An interest-rate swap is an agreement between two entities to exchange cash flows in the future. The agreement sets forth the manner in which the cash flows will be determined and the dates on which they will be paid. One of the simplest forms of an interest-rate swap involves the promise by one party to pay cash flows equivalent to the interest on a notional amount at a predetermined fixed rate for a given period of time. In return for this promise, the party receives cash flows equivalent to the interest on the same notional amount at a variable-rate index for the same period of time. The variable rate we receive or pay in most interest-rate swaps is currently indexed to LIBOR.

Interest-Rate Cap and Floor Agreements. In an interest-rate cap agreement, a cash flow is generated if the price or rate of an underlying variable rises above a certain threshold (or "cap") price. In an interest-rate floor agreement, a cash flow is generated if the price or rate of an underlying variable falls below a certain threshold (or "floor") price. Caps may be used in conjunction with liabilities, and floors may be used in conjunction with assets. Caps and floors are designed to protect against the interest rate on a variable-rate asset or liability falling below or rising above a certain level.

Interest-Rate Swaptions. A swaption is an option on a swap that gives the buyer the right, but not the obligation, to enter into a specified interest-rate swap with the following agreed upon terms with the seller: option premium, time until expiration, fixed vs. floating rates, and notional amount. When used as a hedge, a swaption can protect the buyer against sudden adverse moves in interest rates. To protect against the adverse effects of a sudden decrease in interest rates, a receiver swaption may be utilized in which the buyer has the option to enter into a swap to receive the fixed rate and pay the floating rate. To protect against the adverse effects of a sudden increase in interest rates, a payer swaption may be utilized in which the buyer has the option to enter into a swap to pay the fixed rate and receive the floating rate.

Forward Contracts. Forward contracts give the buyer the right to buy or sell a specific type of asset at a specific time at a given price. For example, certain MDCs entered into by us are considered derivatives. We may hedge these MDCs by selling TBAs for forward settlement.

Types of Hedged Items. We document at inception all relationships between the derivatives designated as hedging instruments and the hedged items, our risk management objectives and strategies for undertaking various hedge transactions, and our method of assessing effectiveness. For derivatives in long-haul hedge accounting relationships, we formally assess (both at the hedge's inception and at least quarterly), using regression analyses, whether the derivatives have been highly effective in offsetting changes in the fair value of the hedged items attributable to the hedged risk and whether those derivatives may be expected to remain highly effective in future periods. We have the following types of hedged items:

Investments. We primarily invest in MBS, U.S. Treasury securities, and GSE and TVA debentures, which may be classified as trading, HTM or AFS securities. The interest-rate, prepayment and duration risks associated with these investment securities are managed through a combination of debt issuance and derivatives. We may manage those risks by funding investment securities with consolidated obligations that contain call features. We may also hedge the prepayment risk with caps or floors, callable swaps or swaptions. We may manage the risk and volatility arising from changing market prices of investment securities by matching the cash outflow on the derivatives with the cash inflow on the investment securities. Derivatives may qualify as either fair-value hedges or be designated as economic hedges.

Advances. We offer a wide range of fixed- and variable-rate advance products with different maturities, interest rates, payment characteristics, and optionality. We may use derivatives to manage the repricing and/or options characteristics of advances in order to more closely match the characteristics of our funding liabilities. In general, whenever a member executes a fixed-rate advance or an adjustable-rate advance with embedded options, we may simultaneously execute a derivative with terms that offset the terms and embedded options in the advance. For example, we may hedge a fixed-rate advance with an interest-rate swap where we pay a fixed-rate and receive a variable-rate, effectively converting the fixed-rate advance to an adjustable-rate advance. This type of hedge is typically treated as a fair-value hedge. In addition, we may hedge a callable, prepayable or putable advance by entering into a cancellable interest-rate swap.

Mortgage Loans. We invest in fixed-rate mortgage loans. The prepayment options embedded in these mortgage loans can result in extensions or contractions in the expected repayment of these loans, depending on changes in prepayment speeds. We manage the interest-rate and prepayment risks associated with mortgage loans through a combination of debt issuance and derivatives. We issue both callable and noncallable consolidated obligations to achieve cash flow patterns and liability durations similar to those expected on the mortgage loans. Interest-rate swaps, to the extent the payments on the mortgages loans result in a simultaneous reduction of the notional amount of the swaps, may qualify for fair-value hedge accounting.

We may also purchase interest-rate caps and floors, swaptions, callable swaps, calls, and puts to minimize the prepayment risk embedded in the loans. Although these derivatives are valid economic hedges against the prepayment risk of the loans, they are not specifically linked to individual loans and, therefore, do not qualify for fair-value hedge accounting. These derivatives are marked to fair value through earnings.

Consolidated Obligations. We may enter into derivatives to hedge the interest-rate risk associated with our debt issuances. We manage the risk and volatility arising from changing market prices of a consolidated obligation by matching the cash inflow on the derivative with the cash outflow on the consolidated obligation.

In a typical transaction, we issue a fixed-rate consolidated obligation and simultaneously enter into a matching derivative in which the counterparty pays fixed cash flows to us designed to match in timing and amount the cash outflows we pay on the consolidated obligation. In turn, we pay a variable cash flow to the counterparty that closely matches the interest payments we receive on short-term or variable-rate advances (typically one- or three-month LIBOR). These transactions are typically treated as fair-value hedges. Additionally, we may issue variable-rate CO bonds indexed to LIBOR, SOFR, the United States prime rate, or federal funds rate and simultaneously execute interest-rate swaps to hedge the basis risk of the variable-rate debt.

Firm Commitments. Certain MDCs are considered derivatives. We normally hedge these commitments by selling TBA MBS or other derivatives for forward settlement. The MDC and the TBA used in the firm commitment hedging strategy are treated as an economic hedge and are marked to fair value through earnings. When the MDC settles, the current fair value of the commitment is included with the basis of the mortgage loan and amortized accordingly.

Managing Credit Risk on Derivatives. We are also subject to credit risk due to the risk of nonperformance by the counterparties to our derivative transactions. We manage counterparty credit risk through credit analysis, collateral requirements and adherence to the requirements set forth in our policies, CFTC regulations, and Finance Agency regulations. For discussion regarding our fair value methodology for derivative assets and liabilities, including an evaluation of the potential for the estimated fair value of these instruments to be affected by counterparty credit risk, see *Note 17 - Estimated Fair Values*.

Uncleared Derivatives. For uncleared derivatives, the degree of credit risk depends on the extent to which master netting arrangements are included in such contracts to mitigate the risk. We require collateral agreements with our uncleared derivatives. The exposure thresholds above which collateral must be delivered vary; the threshold is zero in some cases. Additionally, collateral related to derivatives with member institutions includes collateral assigned to us as evidenced by a written security agreement and held by the member institution for our benefit.

For certain of our uncleared derivatives, we have credit support agreements that contain provisions requiring us to post additional collateral with our counterparties if there is deterioration in our credit rating. If our credit rating is lowered by an NRSRO, we could be required to deliver additional collateral on uncleared derivative instruments in net liability positions. The aggregate estimated fair value of all uncleared derivative instruments with credit-risk-related contingent features that were in a net liability position (before cash collateral and related accrued interest on cash collateral) at December 31, 2019 was $1,196, for which we posted collateral in cash, including accrued interest, of $995 in the normal course of business. If our credit rating had been lowered by an NRSRO (from an S&P equivalent of AA+ to AA), we would not have been required to deliver additional collateral to our uncleared derivative counterparties at December 31, 2019.

Cleared Derivatives. For cleared derivatives, the clearinghouse is our counterparty. We use LCH and CME as clearinghouses for all cleared derivative transactions. Collateral is required to be posted daily for changes in the value of cleared derivatives to mitigate each counterparty's credit risk. The clearinghouse notifies the clearing agent of the required initial and variation margin, and the clearing agent notifies us. The requirement that we post initial and variation margin through the clearing agent for the benefit of the clearinghouse exposes us to institutional credit risk in the event that the clearing agent or clearinghouse fails to meet its obligations.

At both clearinghouses, initial margin is considered cash collateral and variation margin is characterized as daily settlement payments.

The clearinghouse determines margin requirements which are generally not based on credit ratings. However, clearing agents may require additional margin to be posted by us based on credit considerations, including but not limited to any credit rating downgrades. At December 31, 2019, we were not required by our clearing agents to post any additional margin.

($ amounts in thousands unless otherwise indicated)

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 of derivatives also reflects the extent of our involvement in the various classes of financial instruments but represents neither the actual amounts exchanged nor our overall exposure to credit and market risk; the overall risk is much smaller. The risks of derivatives 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. We record derivative instruments, related cash collateral received or pledged/posted and associated accrued interest on a net basis, by clearing agent and/or by counterparty when the netting requirements have been met. The following table presents the notional amount and estimated fair value of derivative assets and liabilities.

December 31, 2019	Notional Amount	Estimated Fair Value of Derivative Assets	Estimated Fair Value of Derivative Liabilities
Derivatives designated as hedging instruments:			
Interest-rate swaps	$ 41,108,749	$ 60,155	$ 318,815
Total derivatives designated as hedging instruments	41,108,749	60,155	318,815
Derivatives not designated as hedging instruments:			
Interest-rate swaps	7,634,000	450	27
Swaptions	850,000	16	—
Interest-rate caps/floors	668,500	215	—
Interest-rate forwards	70,200	—	216
MDCs	70,693	105	3
Total derivatives not designated as hedging instruments	9,293,393	786	246
Total derivatives before adjustments	$ 50,402,142	60,941	319,061
Netting adjustments and cash collateral [1]		147,067	(315,855)
Total derivatives, net		$ 208,008	$ 3,206
December 31, 2018			
Derivatives designated as hedging instruments:			
Interest-rate swaps	$ 35,135,617	$ 174,990	$ 123,331
Total derivatives designated as hedging instruments	35,135,617	174,990	123,331
Derivatives not designated as hedging instruments:			
Interest-rate swaps	965,930	562	106
Swaptions	950,000	105	—
Interest-rate caps/floors	679,500	999	—
Interest-rate forwards	44,100	—	202
MDCs	43,753	146	23
Total derivatives not designated as hedging instruments	2,683,283	1,812	331
Total derivatives before adjustments	$ 37,818,900	176,802	123,662
Netting adjustments and cash collateral [1]		(60,038)	(102,595)
Total derivatives, net		$ 116,764	$ 21,067

(1) Represents the application of the netting requirements that allow us to settle (i) positive and negative positions and (ii) cash collateral and related accrued interest held or placed, with the same clearing agent and/or counterparty. Cash collateral pledged to counterparties at December 31, 2019 and 2018, including accrued interest, totaled $464,187 and $127,952, respectively. Cash collateral received from counterparties and held at December 31, 2019 and 2018, including accrued interest, totaled $1,265 and $85,395, respectively. At December 31, 2019 and 2018, no securities were pledged as collateral.

($ amounts in thousands unless otherwise indicated)

The following table presents separately the estimated fair value of derivative instruments meeting and not meeting netting requirements, including the effect of the related collateral.

	December 31, 2019		December 31, 2018	
	Derivative Assets	Derivative Liabilities	Derivative Assets	Derivative Liabilities
Derivative instruments meeting netting requirements:				
Gross recognized amount				
Uncleared	$ 51,955	$ 318,023	$ 174,725	$ 106,333
Cleared	8,881	819	1,931	17,104
Total gross recognized amount	60,836	318,842	176,656	123,437
Gross amounts of netting adjustments and cash collateral				
Uncleared	(36,954)	(315,036)	(168,426)	(85,491)
Cleared	184,021	(819)	108,388	(17,104)
Total gross amounts of netting adjustments and cash collateral	147,067	(315,855)	(60,038)	(102,595)
Net amounts after netting adjustments and cash collateral				
Uncleared	15,001	2,987	6,299	20,842
Cleared	192,902	—	110,319	—
Total net amounts after netting adjustments and cash collateral	207,903	2,987	116,618	20,842
Derivative instruments not meeting netting requirements [(1)]	105	219	146	225
Total derivatives, at estimated fair value	$ 208,008	$ 3,206	$ 116,764	$ 21,067

(1) Includes MDCs and certain interest-rate forwards.

The following table presents the components of net gains (losses) on derivatives and hedging activities reported in other income.

	Years Ended December 31,		
Type of Hedge	2019	2018	2017
Net gains (losses) related to fair-value hedge ineffectiveness:			
Interest-rate swaps	$ —	$ (5,323)	$ (7,414)
Total net gains (losses) related to fair-value hedge ineffectiveness	—	(5,323)	(7,414)
Net gains (losses) on derivatives not designated as hedging instruments:			
Economic hedges:			
Interest-rate swaps	(6,950)	7,071	122
Swaptions	(1,308)	(892)	(200)
Interest-rate caps/floors	(784)	(60)	(228)
Interest-rate forwards	(1,647)	1,460	(1,728)
Net interest settlements	(9,856)	(7,834)	(416)
MDCs	1,562	(2,390)	835
Total net gains (losses) on derivatives not designated as hedging instruments	(18,983)	(2,645)	(1,615)
Price alignment interest [(1)]	—	(5,382)	(229)
Net gains (losses) on derivatives and hedging activities in other income	$ (18,983)	$ (13,350)	$ (9,258)

(1) Relates to derivatives for which variation margin payments are characterized as daily settled contracts. For 2019, the portion related to derivatives not designated as hedging instruments is allocated to the applicable type of derivative.

Net gains (losses) related to fair-value hedge ineffectiveness previously presented in other income is presented in net interest income for the year ended December 31, 2019. Prior period amounts have not been reclassified. For more information, see *Note 2 - Recently Adopted and Issued Accounting Guidance*.

($ amounts in thousands unless otherwise indicated)

The following table presents, by type of hedged item, the net gains (losses) on the derivatives and the related hedged items in qualifying fair-value hedging relationships and the effect on net interest income.

Year Ended December 31, 2019	Advances	Investments	CO Bonds	Total
Changes in fair value:				
Hedged items (attributable to risk being hedged)	$ 318,284	$ 385,821	$ (104,226)	$ 599,879
Derivatives	(317,351)	(405,391)	99,348	(623,394)
Net changes in fair value before price alignment interest	933	(19,570)	(4,878)	(23,515)
Price alignment interest [(1)]	1,047	(729)	(244)	74
Net interest settlements on derivatives [(2) (3)]	61,614	31,242	(31,949)	60,907
Amortization/accretion of gains (losses) on active hedging relationships	(5)	426	(5,727)	(5,306)
Net gains (losses) on qualifying fair-value hedging relationships	63,589	11,369	(42,798)	32,160
Amortization/accretion of gains (losses) on discontinued fair-value hedging relationships	—	—	(141)	(141)
Net gains (losses) on derivatives and hedging activities in net interest income [(3)]	$ 63,589	$ 11,369	$ (42,939)	$ 32,019
Year Ended December 31, 2018				
Changes in fair value:				
Hedged items (attributable to risk being hedged)	$ 22,557	$ (55,842)	$ 24,419	$ (8,866)
Derivatives	(18,331)	47,268	(25,394)	3,543
Net changes in fair value [(4)]	4,226	(8,574)	(975)	(5,323)
Net interest settlements on derivatives [(2) (3)]	48,555	18,391	(40,907)	26,039
Amortization/accretion of gains (losses) on active hedging relationships	(47)	276	(7,449)	(7,220)
Net gains (losses) on qualifying fair-value hedging relationships	52,734	10,093	(49,331)	13,496
Add: amortization/accretion of gains (losses) on discontinued fair-value hedging relationships	—	—	(137)	(137)
Less: net changes in fair value [(4)]	(4,226)	8,574	975	5,323
Net gains (losses) on derivatives and hedging activities in net interest income [(3)]	$ 48,508	$ 18,667	$ (48,493)	$ 18,682
Year Ended December 31, 2017				
Changes in fair value:				
Hedged items (attributable to risk being hedged)	$ (62,324)	$ (39,843)	$ 43,993	$ (58,174)
Derivatives	61,439	35,620	(46,299)	50,760
Net changes in fair value [(4)]	(885)	(4,223)	(2,306)	(7,414)
Net interest settlements on derivatives [(2) (3)]	(31,461)	(48,144)	16,289	(63,316)
Amortization/accretion of gains (losses) on active hedging relationships	(208)	1,560	231	1,583
Net gains (losses) on qualifying fair-value hedging relationships	(32,554)	(50,807)	14,214	(69,147)
Add: amortization/accretion of gains (losses) on discontinued fair-value hedging relationships	—	—	(133)	(133)
Less: net changes in fair value [(4)]	885	4,223	2,306	7,414
Net gains (losses) on derivatives and hedging activities in net interest income [(3)]	$ (31,669)	$ (46,584)	$ 16,387	$ (61,866)

($ amounts in thousands unless otherwise indicated)

(1) Relates to derivatives for which variation margin payments are characterized as daily settled contracts. In accordance with an amendment to accounting guidance effective January 1, 2019, the portion related to derivatives in qualifying fair-value hedging relationships was recorded prospectively in interest income instead of in other income.
(2) Represents interest income/expense on derivatives in qualifying fair-value hedging relationships. Net interest settlements on derivatives that are not in qualifying fair-value hedging relationships are reported in other income.
(3) Excludes the interest income/expense of the respective hedged items recorded in net interest income.
(4) Net changes in fair value were not reported in net interest income in the prior periods, but are presented herein to conform and provide comparability to the presentation of the current period amounts.

The following table presents the amortized cost of, and the related cumulative basis adjustments on, hedged items in qualifying fair-value hedging relationships.

December 31, 2019	**Advances**	**Investments**	**CO Bonds**
Amortized cost of hedged items [1]	$ 17,320,223	$ 8,394,665	$ 17,039,657
Cumulative basis adjustments included in amortized cost:			
For active fair-value hedging relationships	$ 207,111	$ 150,372	$ 7,855
For discontinued fair-value hedging relationships	—	—	(36)
Total cumulative fair-value hedging basis adjustments on hedged items [2]	$ 207,111	$ 150,372	$ 7,819

(1) Includes only the portion of the amortized cost of the hedged items in qualifying fair-value hedging relationships.
(2) Excludes any offsetting effect of the net fair value of the associated derivatives.

Note 10 - Deposit Liabilities

We offer demand and overnight deposits to members and qualifying non-members. In addition, we offer short-term interest-bearing deposit programs to members. A member that services mortgage loans may deposit funds collected in connection with the mortgage loans, pending disbursement of such funds to the owners of the mortgage loans. We classify these items as other deposits.

Demand, overnight, and other deposits pay interest based on a daily interest rate. Time deposits pay interest based on a fixed rate determined at the origination of the deposit.

The following table presents the types of our interest-bearing and non-interest-bearing deposits.

Type	**December 31, 2019**	**December 31, 2018**
Interest-bearing:		
Demand and overnight	$ 905,382	$ 434,557
Other	658	12
Total interest-bearing	906,040	434,569
Non-interest-bearing:		
Other [1]	54,264	65,871
Total non-interest-bearing	54,264	65,871
Total deposits	$ 960,304	$ 500,440

(1) Includes pass-through deposit reserves from members.

($ amounts in thousands unless otherwise indicated)

Note 11 - Consolidated Obligations

Consolidated obligations consist of CO bonds and discount notes. CO bonds may be issued to raise short-, intermediate- and long-term funds for the FHLBanks and are not subject to any statutory or regulatory limits on maturity. Discount notes are issued primarily to raise short-term funds and have original maturities of up to one year. These notes generally sell at less than their face amount and are redeemed at par value when they mature.

The FHLBanks issue consolidated obligations through the Office of Finance as our agent under the oversight of the Finance Agency and the United States Secretary of the Treasury. In connection with each debt issuance, each FHLBank specifies the amount of debt to be issued on its behalf. Each FHLBank records as a liability the specific portion of consolidated obligations issued on its behalf and for which it is the primary obligor.

In addition to being the primary obligor for all consolidated obligations issued on our behalf, we are jointly and severally liable with each of the other FHLBanks for the payment of the principal and interest on all FHLBanks' outstanding consolidated obligations. The par values of the FHLBanks' outstanding consolidated obligations totaled $1.0 trillion at both December 31, 2019 and 2018. As provided by the Bank Act and Finance Agency regulations, consolidated obligations are backed only by the financial resources of all FHLBanks.

The Finance Agency, in its discretion, may require any FHLBank to make principal or interest payments due on any consolidated obligation whether or not the consolidated obligation represents a primary liability of that FHLBank. Although an FHLBank has never paid the principal or interest payments due on a consolidated obligation on behalf of another FHLBank, if that event should occur, Finance Agency regulations provide that the paying FHLBank is entitled to reimbursement for any payments made on behalf of another FHLBank and other associated costs, including interest to be determined by the Finance Agency. If, however, the Finance Agency determines that such other FHLBank is unable to satisfy its repayment obligations to the paying FHLBank, then the Finance Agency may allocate the outstanding liability of such other FHLBank among the remaining FHLBanks on a pro-rata basis in proportion to their participation in all outstanding consolidated obligations, or in any other manner it may determine to ensure that the FHLBanks operate in a safe and sound manner. We do not believe that it is probable that we will be asked or required to make principal or interest payments on behalf of another FHLBank.

Discount Notes. The following table presents our discount notes outstanding, all of which are due within one year of issuance.

Discount Notes	**December 31, 2019**	**December 31, 2018**
Book value	$ 17,676,793	$ 20,895,262
Par value	$ 17,713,204	$ 20,952,650
Weighted average effective interest rate	1.59 %	2.34 %

CO Bonds. The following table presents our CO bonds outstanding by contractual maturity.

	December 31, 2019		**December 31, 2018**	
Year of Contractual Maturity	**Amount**	**WAIR%**	**Amount**	**WAIR%**
Due in 1 year or less	$ 23,404,785	1.88	$ 18,456,870	2.07
Due after 1 year through 2 years	6,881,120	1.93	8,823,285	2.30
Due after 2 years through 3 years	4,020,790	2.10	2,640,620	2.42
Due after 3 years through 4 years	1,234,375	2.18	3,024,000	2.33
Due after 4 years through 5 years	3,471,250	2.11	998,375	2.54
Thereafter	5,650,600	3.11	6,431,700	3.21
Total CO bonds, par value	44,662,920	2.09	40,374,850	2.36
Unamortized premiums	67,708		23,493	
Unamortized discounts	(13,321)		(15,992)	
Unamortized concessions	(9,902)		(14,085)	
Fair-value hedging basis adjustments, net	7,819		(102,801)	
Total CO bonds	$ 44,715,224		$ 40,265,465	

($ amounts in thousands unless otherwise indicated)

Consolidated obligations are issued with either fixed-rate or variable-rate coupon payment terms that may use a variety of indices for interest-rate resets, such as LIBOR or SOFR. To meet the specific needs of certain investors in CO bonds, both fixed-rate and variable-rate CO bonds may contain features that result in complex coupon payment terms and call options. When these CO bonds are issued, we may enter into derivatives containing features that offset the terms and embedded options, if any, of the CO bonds.

CO bonds may also be callable. Such bonds may be redeemed in whole or in part, at our discretion, on predetermined call dates according to the terms of the offerings.

The following tables present our CO bonds outstanding by redemption feature and the earlier of the year of contractual maturity or next call date.

Redemption Feature	**December 31, 2019**	**December 31, 2018**
Non-callable / non-putable	$ 28,829,420	$ 27,462,850
Callable	15,833,500	12,912,000
Total CO bonds, par value	$ 44,662,920	$ 40,374,850

Year of Contractual Maturity or Next Call Date	**December 31, 2019**	**December 31, 2018**
Due in 1 year or less	$ 36,243,785	$ 30,331,870
Due after 1 year through 2 years	4,484,620	6,069,285
Due after 2 years through 3 years	742,790	1,043,620
Due after 3 years through 4 years	516,375	626,000
Due after 4 years through 5 years	380,750	503,375
Thereafter	2,294,600	1,800,700
Total CO bonds, par value	$ 44,662,920	$ 40,374,850

Interest-Rate Payment Types. CO bonds, beyond having fixed-rate or simple variable-rate interest payment terms, may also have the following features:

- *Step-up CO bonds* pay interest at increasing fixed rates for specified intervals over their lives. These CO bonds generally contain provisions enabling us to call them at our option on the step-up dates;
- *Ratchet CO bonds* pay a floating interest rate indexed on a reference range such as LIBOR. Each floating rate is subject to increasing floors, such that subsequent rates may not be lower than the previous rate; or
- *Conversion CO bonds* have interest rates that convert from fixed to variable, or variable to fixed, or from one index to another, on predetermined dates according to the terms of the offerings.

The following table presents our CO bonds outstanding by interest-rate payment type.

Interest-Rate Payment Type	**December 31, 2019**	**December 31, 2018**
Fixed-rate	$ 27,565,920	$ 27,189,850
Step-up	30,000	330,000
Simple variable-rate	17,067,000	12,855,000
Total CO bonds, par value	$ 44,662,920	$ 40,374,850

($ amounts in thousands unless otherwise indicated)

Note 12 - Affordable Housing Program

The Bank Act requires each FHLBank to establish an AHP, in which the FHLBank provides subsidies in the form of direct grants to members that 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 the aggregate of $100 million or 10% of each FHLBank's net earnings. For purposes of the AHP calculation, net earnings is defined in a Finance Agency Advisory Bulletin as income before assessments, plus interest expense related to MRCS.

The following table summarizes the activity in our AHP funding obligation.

AHP Activity	2019	2018	2017
Liability at beginning of year	$ 40,747	$ 32,166	$ 26,598
Assessment (expense)	17,071	22,570	18,163
Subsidy usage, net [1]	(19,734)	(13,989)	(12,595)
Liability at end of year	$ 38,084	$ 40,747	$ 32,166

(1) Subsidies disbursed are reported net of returns/recaptures of previously disbursed subsidies.

As a part of the AHP, each FHLBank may also provide advances to members at interest rates below then current market rates.

Note 13 - Capital

We are a cooperative whose member and former member institutions own all of our capital stock. Former members (including certain non-member institutions that own our capital stock as a result of a merger with or acquisition of a member) own our capital stock solely to support credit products or mortgage loans still outstanding on our statement of condition. Member shares cannot be purchased or sold except between us and our members or, with our written approval, among our members, at the par value of one hundred dollars per share, as mandated by our capital plan and Finance Agency regulation.

Our capital plan divides our Class B stock into two sub-series: Class B-1 and Class B-2. Class B-2 stock consists solely of required stock that is subject to a redemption request. The Class B-2 dividend is presently calculated at 80% of the amount of the Class B-1 dividend; this ratio can only be changed by amendment of our capital plan by our board of directors with approval of the Finance Agency.

Our board of directors may, but is not required to, declare and pay dividends on our Class B stock in either cash or capital stock or a combination thereof, as long as we are in compliance with Finance Agency regulations. The amount of the dividend to be paid is based on the average number of shares of each sub-series held by the member during the dividend payment period (applicable quarter).

Stock Redemption and Repurchase. In accordance with the Bank Act, our Class B stock is considered putable by the member. Members can redeem Class B stock, subject to certain restrictions, by giving five years' written notice. Any member that withdraws from membership may not be readmitted as a member for a period of five years from the divestiture date for all capital stock that was held as a condition of membership, as set forth in our capital plan, unless the member has canceled or revoked its notice of withdrawal prior to the end of the five-year redemption period. This restriction does not apply if the member is transferring its membership from one FHLBank to another on an uninterrupted basis.

We may repurchase, at our sole discretion, any member's Class B stock that exceeds the required minimum amount. However, there are significant statutory and regulatory restrictions on our right to repurchase, or obligation to redeem, the outstanding stock. As a result, whether or not a member may have its Class B stock repurchased or redeemed will depend, in part, on whether we are in compliance with those restrictions.

Consistent with our capital plan, we are not required to redeem activity-based stock until the expiration of the notice of redemption, or until the activity to which the capital stock relates no longer remains outstanding, whichever is later. If activity-based stock becomes excess stock (i.e., the amount of stock held by a member or former member in excess of our stock ownership requirement for that institution) as a result of an activity no longer remaining outstanding, we may redeem the excess stock at our discretion, subject to the statutory and regulatory restrictions on capital stock redemption.

($ amounts in thousands unless otherwise indicated)

A member may cancel or revoke its written notice of redemption or its notice of withdrawal from membership prior to the five-year redemption period. However, our capital plan provides that we may charge a cancellation fee to a member that cancels or revokes its withdrawal notice.

Through December 31, 2019, certain members had requested redemptions of their Class B stock, but the related stock outstanding at December 31, 2019 and 2018 totaling $935 was not considered mandatorily redeemable and reclassified to MRCS because the requesting members may revoke their requests, without substantial penalty, throughout the five-year waiting period. Therefore, these requests are not considered sufficiently substantive in nature. However, we consider redemption requests related to mergers, acquisitions or charter terminations, as well as involuntary terminations from membership, to be sufficiently substantive when made and, therefore, the related stock is considered mandatorily redeemable and reclassified to MRCS.

Mandatorily Redeemable Capital Stock. The following table presents the activity in our MRCS.

MRCS Activity	**2019**	**2018**	**2017**
Liability at beginning of year	$ 168,876	$ 164,322	$ 170,043
Reclassification from capital stock	150,978	31,214	—
Proceeds from issuance [1]	3,704	—	—
Redemptions/repurchases	(1,255)	(26,698)	(5,721)
Accrued distributions	599	38	—
Liability at end of year	$ 322,902	$ 168,876	$ 164,322

(1) Represents a purchase of capital stock by a captive insurance company member, which is considered mandatorily redeemable as a result of the Final Membership Rule.

In accordance with the Final Membership Rule, captive insurance companies that were admitted as FHLBank members on or after September 12, 2014 had their memberships terminated by February 19, 2017. All of their outstanding Class B stock, totaling $3,021 at December 31, 2016, was repurchased on or before February 19, 2017.

Captive insurance companies that were admitted as FHLBank members prior to September 12, 2014, and do not meet the definition of "insurance company" or fall within another category of institution that is eligible for FHLBank membership under the Final Membership Rule, shall have their memberships terminated no later than February 19, 2021. Upon termination, their outstanding Class B stock will be repurchased or redeemed in accordance with the Final Membership Rule.

($ amounts in thousands unless otherwise indicated)

The following table presents MRCS by contractual year of redemption. The year of redemption is the later of: (i) the final year of the five-year redemption period, or (ii) the first year in which a non-member no longer has an activity-based stock requirement.

MRCS Contractual Year of Redemption	**December 31, 2019**	**December 31, 2018**
Year 1 [(1)]	$ 680	$ 1,316
Year 2	8,649	—
Year 3	—	8,649
Year 4	26,723	—
Year 5	150,958	26,723
Thereafter [(2)]	135,892	132,188
Total MRCS	$ 322,902	$ 168,876

(1) Balances at December 31, 2019 and 2018 include $681 and $1,304, respectively, of Class B stock that had reached the end of the five-year redemption period but will not be redeemed until the associated credit products and other obligations are no longer outstanding.

(2) Represents the five-year redemption period of Class B stock held by certain captive insurance companies which begins immediately upon their respective terminations of membership no later than February 19, 2021, in accordance with the Final Membership Rule. However, upon their respective terminations, we currently intend to repurchase their excess stock (if any) in accordance with our capital plan, the balances of which at December 31, 2019 and 2018 totaled $61,642 and $57,938, respectively.

When a member's membership status changes to a non-member, the member's capital stock is reclassified to MRCS. If such change occurs during a quarterly period, but not at the beginning or the end of a quarterly period, any dividends for that quarterly period are allocated between distributions from retained earnings for the shares held as capital stock during that period and interest expense for the shares held as MRCS during that period. Therefore, the distributions from retained earnings represent dividends to former members for only the portion of the period that they were members. The amounts recorded to interest expense represent dividends to former members for the portion of that period and subsequent periods that they were not members.

The following table presents the distributions related to MRCS.

	Years Ended December 31,		
MRCS Distributions	**2019**	**2018**	**2017**
Recorded as interest expense	$ 11,863	$ 8,391	$ 7,034
Recorded as distributions from retained earnings	599	38	—
Total	$ 12,462	$ 8,429	$ 7,034

Restricted Retained Earnings. In 2011, we entered into a JCE Agreement with all of the other FHLBanks to enhance the capital position of each FHLBank. In accordance with the JCE Agreement, we allocate 20% of our net income to a separate restricted retained earnings account until the balance of that account equals at least 1% of the average balance of our outstanding consolidated obligations for the previous quarter. These restricted retained earnings are not available from which to pay dividends except to the extent the restricted retained earnings balance exceeds 1.5% of the average balance of our outstanding consolidated obligations for the previous quarter.

($ amounts in thousands unless otherwise indicated)

Capital Requirements. We are subject to three capital requirements under our capital plan and Finance Agency regulations:

(i) Risk-based capital. We must maintain at all times permanent capital, defined as Class B stock (including MRCS) and retained earnings, in an amount at least equal to the sum of our credit risk, market risk, and operations risk capital requirements, all of which are calculated in accordance with Finance Agency regulations. The Finance Agency may require us to maintain a greater amount of permanent capital than is required by the risk-based capital requirements as defined.

(ii) Total regulatory capital. We are required to maintain at all times a total capital-to-assets ratio of at least 4%. Total regulatory capital is the sum of permanent capital, any general loss allowance, if consistent with GAAP and not established for specific assets, and other amounts from sources determined by the Finance Agency as available to absorb losses. For regulatory capital purposes, AOCI is not considered capital.

(iii) Leverage capital. We are required to maintain at all times a leverage capital-to-assets ratio of at least 5%. Leverage capital is defined as the sum of (i) permanent capital weighted 1.5 times and (ii) all other capital without a weighting factor.

As presented in the following table, we were in compliance with these Finance Agency's capital requirements at December 31, 2019 and 2018.

	December 31, 2019		December 31, 2018	
Regulatory Capital Requirements	**Required**	**Actual**	**Required**	**Actual**
Risk-based capital	$ 639,495	$ 3,412,286	$ 786,925	$ 3,177,638
Total regulatory capital	$ 2,700,431	$ 3,412,286	$ 2,616,468	$ 3,177,638
Total regulatory capital-to-assets ratio	4.00 %	5.05 %	4.00 %	4.86 %
Leverage capital	$ 3,375,539	$ 5,118,429	$ 3,270,585	$ 4,766,457
Leverage ratio	5.00 %	7.58 %	5.00 %	7.29 %

($ amounts in thousands unless otherwise indicated)

Note 14 - Accumulated Other Comprehensive Income

The following table presents a summary of the changes in the components of AOCI.

AOCI Rollforward	Unrealized Gains (Losses) on AFS Securities	Non-Credit OTTI on AFS Securities	Non-Credit OTTI on HTM Securities	Pension Benefits	Total AOCI
Balance, December 31, 2016	$ 39,468	$ 26,938	$ (103)	$ (9,935)	$ 56,368
OCI before reclassifications:					
Net change in unrealized gains (losses)	53,051	2,189	—	—	55,240
Net change in fair value	—	29	—	—	29
Accretion of non-credit losses	—	—	10	—	10
Reclassifications from OCI to net income:					
Non-credit portion of OTTI losses	—	166	42	—	208
Pension benefits, net	—	—	—	(449)	(449)
Total other comprehensive income (loss)	53,051	2,384	52	(449)	55,038
Balance, December 31, 2017	$ 92,519	$ 29,322	$ (51)	$ (10,384)	$ 111,406
OCI before reclassifications:					
Net change in unrealized gains (losses)	(39,533)	392	—	—	(39,141)
Net change in fair value	—	2,693	—	—	2,693
Accretion of non-credit losses	—	—	51	—	51
Reclassifications from OCI to net income:					
Net realized gains from sale of AFS securities	—	(32,407)	—	—	(32,407)
Pension benefits, net	—	—	—	(915)	(915)
Total other comprehensive income (loss)	(39,533)	(29,322)	51	(915)	(69,719)
Balance, December 31, 2018	$ 52,986	$ —	$ —	$ (11,299)	$ 41,687
OCI before reclassifications:					
Net change in unrealized gains (losses)	36,827	—	—	—	36,827
Reclassifications from OCI to net income:					
Pension benefits, net	—	—	—	(11,138)	(11,138)
Total other comprehensive income (loss)	36,827	—	—	(11,138)	25,689
Balance, December 31, 2019	$ 89,813	$ —	$ —	$ (22,437)	$ 67,376

($ amounts in thousands unless otherwise indicated)

Note 15 - Employee and Director Retirement and Deferred Compensation Plans

Qualified Defined Benefit Pension Plan. We participate in a tax-qualified, defined-benefit pension plan for financial institutions administered by Pentegra Retirement Services. This DB Plan is treated as a multiemployer plan for accounting purposes but operates as a multiple-employer plan under the Employee Retirement Income Security Act of 1974 and the Internal Revenue Code. As a result, certain multiemployer plan disclosures are not applicable.

Under the DB Plan, contributions made by a 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 to employees of that employer only. Also, in the event that a participating employer is unable to meet its contribution or funding requirements, the required contributions for the other participating employers (including us) could increase proportionately.

Our DB Plan covers our officers and employees who meet certain eligibility requirements, including an employment date prior to February 1, 2010. The DB Plan operates on a fiscal year from July 1 through June 30 and files one Form 5500 on behalf of all participating employers. The most recent Form 5500 available for the DB Plan is for the plan year ended June 30, 2018. The Employer Identification Number is 13-5645888 and the three digit plan number is 333. There are no collective bargaining agreements in place.

The DB Plan's annual valuation process includes calculating its funded status and separately calculating the funded status of each participating employer. The funded status is calculated as the market value of plan assets divided by the funding target (100% of the present value of all benefit liabilities accrued at that date utilizing the discount rate prescribed by statute). The calculation of the funding target as of July 1, 2019, 2018 and 2017 incorporated a higher discount rate in accordance with MAP-21, which resulted in a lower funding target and a higher funded status. Over time, the favorable impact of MAP-21 is expected to decline. As permitted by the Employee Retirement Income Security Act of 1974, the DB Plan accepts contributions for the prior plan year up to eight and a half months after the asset valuation date. As a result, the market value of plan assets at the valuation date (July 1) will increase by any subsequent contributions designated for the immediately preceding plan year ended June 30.

Our contributions to the DB Plan for the fiscal years ended December 31, 2019, 2018 and 2017 were not more than 5% of the total contributions to the DB Plan by all participating employers for the plan years ended June 30, 2018, 2017 and 2016, respectively.

The following table presents a summary of net pension costs charged to compensation and benefits expense and the DB Plan's funded status.

DB Plan Net Pension Cost and Funded Status	2019	2018	2017
Net pension cost charged to compensation and benefits expense for the year ended December 31[(1)]	$ 3,500	$ 2,750	$ 4,450
DB Plan funded status as July 1	109 % [(a)]	110 % [(b)]	112 %
Our funded status as of July 1	109 %	116 %	117 %

(1) Includes voluntary contributions for the years ended December 31, 2019, 2018 and 2017 of $2,856, $2,240, and $3,893, respectively.

(a) The DB Plan's funded status as of July 1, 2019 is preliminary and may increase because the participating employers are permitted to make designated contributions for the plan year ended June 30, 2019 through March 15, 2020. Any such contributions will be included in the final valuation as of July 1, 2019. The final funded status as of July 1, 2019 will not be available until the Form 5500 for the plan year ended June 30, 2020 is filed (no later than April 2021).

(b) The DB Plan's final funded status as of July 1, 2018 will not be available until the Form 5500 for the plan year ended June 30, 2019 is filed (no later than April 2020).

($ amounts in thousands unless otherwise indicated)

Qualified Defined Contribution Plan. We participate in a tax-qualified, multiple-employer defined contribution plan for financial institutions administered by Pentegra Retirement Services. This DC plan covers our officers and employees who meet certain eligibility requirements. Our contribution is equal to a percentage of voluntary employee contributions, subject to certain limitations. During the years ended December 31, 2019, 2018, and 2017, we contributed $2,778, $2,478, and $1,577, respectively.

Nonqualified Supplemental Defined Benefit Retirement Plan. We participate in a single-employer, non-qualified, unfunded supplemental executive retirement plan administered by Pentegra Retirement Services. This SERP restores all of the defined benefits to participating employees who have had their qualified defined benefits limited by Internal Revenue Service regulations. Because the SERP is a non-qualified unfunded plan, no contributions are required to be made. However, we may elect to make contributions to a related grantor trust that we established to indirectly fund the SERP in order to maintain a desired funding level. Payments of benefits may be made from the related grantor trust or from our general assets.

The following table presents the changes in our SERP benefit obligation.

Change in benefit obligation	**2019**	**2018**	**2017**
Projected benefit obligation at beginning of year	$ 27,593	$ 23,176	$ 20,022
Service cost	1,636	1,762	1,035
Interest cost	1,039	863	738
Actuarial loss	13,079	3,452	1,712
Benefits paid	(628)	(1,660)	(331)
Projected benefit obligation at end of year	$ 42,719	$ 27,593	$ 23,176

The measurement date used to determine our SERP benefit obligation was December 31. The following table presents the key assumptions used in the actuarial calculations of the benefit obligation.

	December 31, 2019	**December 31, 2018**
Discount rate	2.55 %	3.64 %
Compensation increases	5.50 %	5.50 %

The discount rate represents a weighted average that was determined by a discounted cash-flow approach, which incorporates the timing of each expected future benefit payment. We estimate future benefit payments based on the census data of the SERP's participants, benefit formulas and provisions, and valuation assumptions reflecting the probability of decrement and survival. We then determine the present value of the future benefit payments by using duration-based interest-rate yields from the Financial Times Stock Exchange Group Pension Discount Curve as of the measurement date, and solving for the single discount rate that produces the same present value of the future benefit payments.

The accumulated benefit obligation for the SERP, which excludes projected future salary increases, was $31,595 and $20,677 as of December 31, 2019 and 2018, respectively.

The unfunded benefit obligation is reported in other liabilities. Although there are no plan assets, the assets in the related grantor trust, included as a component of other assets, had a total fair value of $21,983 and $18,916 at December 31, 2019 and 2018, respectively.

($ amounts in thousands unless otherwise indicated)

The following table presents the components of the net periodic benefit cost and the amounts recognized in OCI for the SERP.

	Years Ended December 31,		
	2019	2018	2017
Net periodic benefit cost:			
Service cost	$ 1,636	$ 1,762	$ 1,035
Net periodic benefit cost recognized in compensation and benefits	1,636	1,762	1,035
Interest cost	1,039	863	738
Amortization of prior service benefit	—	—	—
Amortization of net actuarial loss	1,941	2,539	1,263
Net periodic benefit cost recognized in other expenses	2,980	3,402	2,001
Total net periodic benefit cost recognized in the statement of income	4,616	5,164	3,036
Amounts recognized in OCI:			
Actuarial loss	13,079	3,452	1,712
Amortization of net actuarial loss	(1,941)	(2,539)	(1,263)
Net loss recognized in OCI	11,138	913	449
Total recognized as net periodic benefit cost	$ 15,754	$ 6,077	$ 3,485

The following table presents the key assumptions used in the actuarial calculations to determine net periodic benefit cost for the SERP.

	Years Ended December 31,		
	2019	2018	2017
Discount rate	3.64 %	3.00 %	4.00 %
Compensation increases	5.50 %	5.50 %	5.50 %

The following table presents the components of the pension benefits reported in AOCI related to the SERP.

	December 31, 2019	December 31, 2018
Net actuarial loss	$ (22,436)	$ (11,298)
Net pension benefits reported in AOCI	$ (22,436)	$ (11,298)

The following table presents the amounts that will be amortized from AOCI into net periodic benefit cost during the year ending December 31, 2020.

	Year Ending December 31, 2020
Net actuarial loss	$ 2,829
Net amount to be amortized	$ 2,829

The net periodic benefit cost for the SERP, including the net amount to be amortized, for the year ending December 31, 2020 is projected to be approximately $6,110.

($ amounts in thousands unless otherwise indicated)

The following table presents the estimated future benefit payments reflecting scheduled benefit payments for retired participants and the estimated payments to active participants, based on the actual form of payment elected by the participant and weighting the value of the participant's benefits based on the probability of the participant retiring.

For the Years Ending December 31,	
2020	$ 4,836
2021	3,756
2022	13,753
2023	2,616
2024	1,540
2025 - 2029	10,408

Nonqualified Supplemental Executive Thrift Plan. Effective January 1, 2016, we offer the SETP, a voluntary, non-qualified, unfunded deferred compensation plan that permits certain officers and approved employees of the Bank to elect to defer certain components of their compensation. The SETP constitutes a deferred compensation arrangement that complies with Section 409A of the Internal Revenue Code, as amended. The SETP provides that, subject to certain limitations, the Bank will make matching contributions to the participant's deferred contribution account each plan year. For the years ended December 31, 2019, 2018 and 2017, we contributed $73, $70 and $52, respectively, to the SETP and our liability at December 31, 2019 and 2018 was $1,973 and $1,127, respectively.

Directors' Deferred Compensation Plan. Effective January 1, 2016, we offer the DDCP, a voluntary, non-qualified, unfunded deferred compensation plan that permits our directors to defer all or a portion of the fees payable to them for a calendar year for their services as directors. The DDCP constitutes a deferred compensation arrangement that complies with Section 409A of the Internal Revenue Code, as amended. Any duly elected and serving member of our board may participate in the DDCP. We make no matching contributions under the DDCP. Our liability under the DDCP at December 31, 2019 and 2018 was $2,080 and $1,079, respectively.

Note 16 - Segment Information

We report based on two operating segments:

- Traditional, which consists of credit products (including advances, letters of credit, and lines of credit), investments (including federal funds sold, securities purchased under agreements to resell, interest-bearing demand deposit accounts, and investment securities), and correspondent services and deposits; and
- Mortgage loans, which consists of mortgage loans purchased from our members through our MPP and participating interests purchased in 2012 - 2014 from the FHLBank of Topeka in mortgage loans that were originated by certain of its PFIs under the MPF Program.

These segments reflect our 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 we provide services to members.

We measure the performance of each segment based upon the net interest spread of the underlying portfolio(s). Therefore, each segment's performance begins with net interest income.

Traditional net interest income is derived primarily from the difference, or spread, between the interest income earned on advances and investments and the borrowing costs related to those assets, net interest settlements and changes in fair value related to certain interest-rate swaps, and related premium and discount amortization. Traditional also includes the costs related to holding deposits for members and other miscellaneous borrowings. Mortgage loan net interest income is derived primarily from the difference, or spread, between the interest income earned on mortgage loans, including the premium and discount amortization, and the borrowing costs related to those loans.

($ amounts in thousands unless otherwise indicated)

Direct other income and expense also affect each segment's results. The traditional segment includes the direct earnings impact of certain derivatives and hedging activities related to advances, investments and consolidated obligations as well as all other miscellaneous income and expense not associated with mortgage loans. The mortgage loans segment includes the direct earnings impact of derivatives and hedging activities as well as direct compensation, benefits and other expenses (including an allocation for indirect overhead) associated with operating the MPP and MPF Program and volume-driven costs associated with master servicing and quality control fees.

Net gains (losses) related to fair-value hedge ineffectiveness previously presented in other income is presented in net interest income for the year ended December 31, 2019. Prior period amounts have not been reclassified. For more information, see *Note 2 - Recently Adopted and Issued Accounting Guidance*.

The assessments related to AHP have been allocated to each segment based upon its proportionate share of income before assessments.

The following table presents our financial performance by operating segment.

Year Ended December 31, 2019	Traditional	Mortgage Loans	Total
Net interest income	$ 181,367	$ 55,875	$ 237,242
Provision for (reversal of) credit losses	—	(289)	(289)
Other income (loss)	20,166	143	20,309
Other expenses	84,638	14,356	98,994
Income before assessments	116,895	41,951	158,846
Affordable Housing Program assessments	12,876	4,195	17,071
Net income	$ 104,019	$ 37,756	$ 141,775

Year Ended December 31, 2018	Traditional	Mortgage Loans	Total
Net interest income	$ 220,886	$ 67,201	$ 288,087
Provision for (reversal of) credit losses	—	(231)	(231)
Other income (loss)	22,253	(1,744)	20,509
Other expenses	77,526	13,995	91,521
Income before assessments	165,613	51,693	217,306
Affordable Housing Program assessments	17,401	5,169	22,570
Net income	$ 148,212	$ 46,524	$ 194,736

Year Ended December 31, 2017	Traditional	Mortgage Loans	Total
Net interest income	$ 193,278	$ 69,725	$ 263,003
Provision for (reversal of) credit losses	—	51	51
Other income (loss)	(5,110)	(886)	(5,996)
Other expenses	69,644	12,718	82,362
Income before assessments	118,524	56,070	174,594
Affordable Housing Program assessments	12,556	5,607	18,163
Net income	$ 105,968	$ 50,463	$ 156,431

We have not symmetrically allocated assets to each segment based upon financial results as it is impracticable to measure the performance of our segments from a total assets perspective. As a result, there is asymmetrical information presented in the tables above including, among other items, the allocation of depreciation without an allocation of the depreciable assets, derivatives and hedging earnings adjustments with no corresponding allocation to derivative assets, if any, and the recording of interest income with no allocation to accrued interest receivable.

($ amounts in thousands unless otherwise indicated)

The following table presents asset balances by operating segment.

By Date	Traditional	Mortgage Loans	Total
December 31, 2019	$56,695,738	$10,815,037	$67,510,775
December 31, 2018	54,026,721	11,384,978	65,411,699

Note 17 - Estimated Fair Values

We estimate fair value amounts by using available market and other pertinent information and the most appropriate valuation methods. Although we use our best judgment in estimating the fair values of financial instruments, there are inherent limitations in any valuation technique. Therefore, these estimated fair values may not be indicative of the amounts that would have been realized in market transactions at the reporting dates.

Certain estimates of the fair value of financial assets and liabilities are highly subjective and require judgments regarding significant factors such as the amount and timing of future cash flows, prepayment speeds, interest-rate volatility, and the discount rates that appropriately reflect market and credit risks. The use of different assumptions could have a material effect on the fair value estimates.

Fair Value Hierarchy. GAAP establishes a fair value hierarchy and requires us to maximize the use of significant observable inputs and minimize the use of significant unobservable inputs when measuring estimated fair value. The inputs are evaluated, and an overall level for the estimated fair value measurement is determined. This overall level is an indication of the extent of the market observability of the estimated fair value measurement for the asset or liability.

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 we can access on the measurement date. An active market for the asset or liability is a market in which the transactions for the asset or liability occur with sufficient frequency and volume to provide pricing information on an ongoing basis.

Level 2 Inputs. Inputs other than quoted prices within level 1 that are observable inputs for the asset or liability, either directly or indirectly. If the asset or liability has a specified or contractual term, a level 2 input must be observable for substantially the full term of the asset or liability. Level 2 inputs include (i) quoted prices for similar assets or liabilities in active markets; (ii) quoted prices for identical or similar assets or liabilities in markets that are not active; (iii) 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 (iv) 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.

We review the fair value hierarchy classifications on a quarterly basis. Changes in the observability of the inputs may result in a reclassification of certain assets or liabilities. Such reclassifications are reported as transfers in/out at estimated fair value as of the beginning of the quarter in which the changes occur. There were no such reclassifications during the years ended December 31, 2019, 2018, or 2017.

($ amounts in thousands unless otherwise indicated)

The following tables present the carrying value and estimated fair value of each of our financial instruments. The total of the estimated fair values does not represent an estimate of our overall market value as a going concern, which would take into account, among other considerations, future business opportunities and the net profitability of assets and liabilities.

	December 31, 2019					
		Estimated Fair Value				
Financial Instruments	**Carrying Value**	**Total**	**Level 1**	**Level 2**	**Level 3**	**Netting Adjustments** [1]
Assets:						
Cash and due from banks	$ 220,294	$ 220,294	$ 220,294	$ —	$ —	$ —
Interest-bearing deposits	809,141	809,141	809,000	141	—	—
Securities purchased under agreements to resell	1,500,000	1,500,000	—	1,500,000	—	—
Federal funds sold	2,550,000	2,550,000	—	2,550,000	—	—
Trading securities	5,016,649	5,016,649	—	5,016,649	—	—
AFS securities	8,484,478	8,484,478	—	8,484,478	—	—
HTM securities	5,216,401	5,216,206	—	5,216,206	—	—
Advances	32,480,108	32,425,749	—	32,425,749	—	—
Mortgage loans held for portfolio, net	10,815,037	10,943,595	—	10,935,787	7,808	—
Accrued interest receivable	131,822	131,822	—	131,822	—	—
Derivative assets, net	208,008	208,008	—	60,941	—	147,067
Grantor trust assets [2]	26,050	26,050	26,050	—	—	—
Liabilities:						
Deposits	960,304	960,304	—	960,304	—	—
Consolidated obligations:						
Discount notes	17,676,793	17,679,210	—	17,679,210	—	—
Bonds	44,715,224	45,036,500	—	45,036,500	—	—
Accrued interest payable	178,981	178,981	—	178,981	—	—
Derivative liabilities, net	3,206	3,206	—	319,061	—	(315,855)
MRCS	322,902	322,902	322,902	—	—	—

($ amounts in thousands unless otherwise indicated)

	December 31, 2018					
		Estimated Fair Value				
Financial Instruments	**Carrying Value**	**Total**	**Level 1**	**Level 2**	**Level 3**	**Netting Adjustments** [(1)]
Assets:						
Cash and due from banks	$ 100,735	$ 100,735	$ 100,735	$ —	$ —	$ —
Interest-bearing deposits	1,210,705	1,210,705	1,210,039	666	—	—
Securities purchased under agreements to resell	3,212,726	3,212,728	—	3,212,728	—	—
Federal funds sold	3,085,000	3,085,000	—	3,085,000	—	—
AFS securities	7,703,596	7,703,596	—	7,703,596	—	—
HTM securities	5,673,720	5,676,145	—	5,676,145	—	—
Advances	32,727,668	32,669,145	—	32,669,145	—	—
Mortgage loans held for portfolio, net	11,384,978	11,212,978	—	11,202,984	9,994	—
Accrued interest receivable	124,611	124,611	—	124,611	—	—
Derivative assets, net	116,764	116,764	—	176,802	—	(60,038)
Grantor trust assets [(2)]	21,122	21,122	21,122	—	—	—
Liabilities:						
Deposits	500,440	500,440	—	500,440	—	—
Consolidated obligations:						
Discount notes	20,895,262	20,895,446	—	20,895,446	—	—
Bonds	40,265,465	40,137,791	—	40,137,791	—	—
Accrued interest payable	179,728	179,728	—	179,728	—	—
Derivative liabilities, net	21,067	21,067	—	123,662	—	(102,595)
MRCS	168,876	168,876	168,876	—	—	—

(1) Represents the application of the netting requirements that allow the settlement of (i) positive and negative positions and (ii) cash collateral and related accrued interest held or placed, with the same clearing agent and/or counterparty.
(2) Included in other assets on the statement of condition.

Summary of Valuation Techniques and Significant Inputs.

Investment Securities - MBS. The estimated fair value incorporates prices from multiple third-party pricing vendors, when available. These pricing vendors use various proprietary models to price MBS. The inputs to those models are derived from various sources, including, but not limited to, benchmark yields, reported trades, dealer estimates, issuer spreads, benchmark securities, bids, offers, and other market-related data.

We conduct reviews of the pricing vendors' processes, methodologies and control procedures to confirm and further augment our understanding of the vendors' prices for our MBS. Each pricing vendor has an established challenge process in place for all MBS valuations, which facilitates resolution of potentially erroneous prices identified by us.

Our valuation technique for estimating the fair values of MBS initially requires the establishment of a "median" price for each security. All prices that are within a specified tolerance threshold of the median price are then included in the "cluster" of prices that are averaged to compute a "default" price. All prices that are outside the threshold (i.e., outliers) are subject to further analysis (including, but not limited to, comparison to prices provided by an additional third-party valuation service, prices for similar securities, and/or non-binding dealer estimates) to determine if an outlier is a better estimate of fair value. If so, then the outlier (or the other price as appropriate) is used as the final price rather than the default price. In all cases, the final price is used to determine the estimated fair value of the security.

As of December 31, 2019, two or three prices were received for substantially all of our MBS.

Investment Securities - non-MBS. The estimated fair value is determined using market-observable price quotes from third-party pricing vendors, such as the Composite Bloomberg Bond Trader screen, thus falling under the market approach.

Impaired Mortgage Loans Held for Portfolio. We record non-recurring fair value adjustments to reflect partial charge-offs on impaired mortgage loans. We estimate the fair value of these assets using a current property value obtained from a third-party.

Derivative assets/liabilities. We base the estimated fair values of derivatives with similar terms on market prices when available. However, active markets do not exist for many of our derivatives. Consequently, fair values for these instruments are generally estimated using standard valuation techniques such as discounted cash-flow analysis and comparisons to similar instruments. In limited instances, fair value estimates for derivatives are obtained from dealers and are corroborated by using a pricing model and observable market data (e.g., the LIBOR or OIS curves).

A discounted cash flow analysis utilizes market-observable inputs (inputs that are actively quoted and can be validated to external sources). Inputs by class of derivative are as follows:

Interest-rate related:
- LIBOR curve or the OIS curve to project cash flows for collateralized interest-rate swaps and the OIS curve to discount; and
- Volatility assumption - market-based expectations of future interest-rate volatility implied from current market prices for similar options.

TBAs:
- TBA securities prices - market-based prices are determined by coupon, maturity and expected term until settlement.

MDCs:
- TBA securities prices - prices are then adjusted for differences in coupon, average loan rate and seasoning.

The estimated fair values of our derivative assets and liabilities include accrued interest receivable/payable and related cash collateral. The estimated fair values of the accrued interest receivable/payable and cash collateral equal their carrying values due to their short-term nature.

We adjust the estimated fair values of our derivatives for counterparty nonperformance risk, particularly credit risk, as appropriate. We compute our nonperformance risk adjustment by using observable credit default swap spreads and estimated probability default rates applied to our exposure after considering collateral held or placed.

Grantor Trust Assets. Grantor trust assets, included as a component of other assets, are carried at estimated fair value based on quoted market prices as of the last business day of the reporting period.

($ amounts in thousands unless otherwise indicated)

Estimated Fair Value Measurements. The following tables present, by level within the fair value hierarchy, the estimated fair value of our financial assets and liabilities that are recorded at estimated fair value on a recurring or non-recurring basis on our statement of condition.

December 31, 2019	Total	Level 1	Level 2	Level 3	Netting Adjustments [1]
Trading securities:					
U.S. Treasury obligations	$ 5,016,649	$ —	$ 5,016,649	$ —	$ —
Total trading securities	5,016,649	—	5,016,649	—	—
AFS securities:					
GSE and TVA debentures	3,926,852	—	3,926,852	—	—
GSE MBS	4,557,626	—	4,557,626	—	—
Total AFS securities	8,484,478	—	8,484,478	—	—
Derivative assets:					
Interest-rate related	207,903	—	60,836	—	147,067
Interest-rate forwards	—	—	—	—	—
MDCs	105	—	105	—	—
Total derivative assets, net	208,008	—	60,941	—	147,067
Grantor trust assets [2]	26,050	26,050	—	—	—
Total assets at recurring estimated fair value	$ 13,735,185	$ 26,050	$ 13,562,068	$ —	$ 147,067
Derivative liabilities:					
Interest-rate related	$ 2,987	$ —	$ 318,842	$ —	$ (315,855)
Interest-rate forwards	216	—	216	—	—
MDCs	3	—	3	—	—
Total derivative liabilities, net	3,206	—	319,061	—	(315,855)
Total liabilities at recurring estimated fair value	$ 3,206	$ —	$ 319,061	$ —	$ (315,855)
Mortgage loans held for portfolio [3]	$ 1,504	$ —	$ —	$ 1,504	$ —
Total assets at non-recurring estimated fair value	$ 1,504	$ —	$ —	$ 1,504	$ —

($ amounts in thousands unless otherwise indicated)

December 31, 2018	Total	Level 1	Level 2	Level 3	Netting Adjustments [1]
AFS securities:					
GSE and TVA debentures	$ 4,277,080	$ —	$ 4,277,080	$ —	$ —
GSE MBS	3,426,516	—	3,426,516	—	—
Total AFS securities	7,703,596	—	7,703,596	—	—
Derivative assets:					
Interest-rate related	116,618	—	176,656	—	(60,038)
MDCs	146	—	146	—	—
Total derivative assets, net	116,764	—	176,802	—	(60,038)
Grantor trust assets [2]	21,122	21,122	—	—	—
Total assets at recurring estimated fair value	$ 7,841,482	$ 21,122	$ 7,880,398	$ —	$ (60,038)
Derivative liabilities:					
Interest-rate related	$ 20,842	$ —	$ 123,437	$ —	$ (102,595)
Interest-rate forwards	202	—	202	—	—
MDCs	23	—	23	—	—
Total derivative liabilities, net	21,067	—	123,662	—	(102,595)
Total liabilities at recurring estimated fair value	$ 21,067	$ —	$ 123,662	$ —	$ (102,595)
Mortgage loans held for portfolio [4]	$ 1,734	$ —	$ —	$ 1,734	$ —
Total assets at non-recurring estimated fair value	$ 1,734	$ —	$ —	$ 1,734	$ —

(1) Represents the application of the netting requirements that allow us to settle (i) positive and negative positions and (ii) cash collateral and related accrued interest held or placed, with the same clearing agent and/or counterparty.
(2) Included in other assets.
(3) Amounts are as of the date the fair-value adjustment was recorded during the year ended December 31, 2019.
(4) Amounts are as of the date the fair-value adjustment was recorded during the year ended December 31, 2018.

($ amounts in thousands unless otherwise indicated)

Level 3 Disclosures for All Assets and Liabilities that are Measured at Fair Value on a Recurring Basis. The table below presents a rollforward of our AFS private-label RMBS measured at estimated fair value on a recurring basis using level 3 significant inputs. The estimated fair values were determined using a pricing source, such as a dealer quote or comparable security price, for which the significant inputs used to determine the price were not readily observable. During the year ended December 31, 2018, for strategic, economic and operational reasons, we sold all of our AFS investments in private-label RMBS.

AFS private-label RMBS Level 3 Rollforward	2018	2017
Balance, beginning of year	$ 218,534	$ 269,119
Total realized and unrealized gains (losses):		
Net realized gains from sale of AFS securities	32,407	—
Accretion of credit losses in interest income	1,884	6,778
Net losses on changes in fair value in other income	—	(166)
Net change in fair value not in excess of cumulative non-credit losses in OCI	2,693	29
Unrealized gains in OCI	392	2,189
Reclassification of non-credit portion in OCI to other income	—	166
Purchases, issuances, sales and settlements:		
Sales	(236,248)	—
Settlements	(19,662)	(59,581)
Balance, end of year	$ —	$ 218,534
Net gains included in earnings attributable to changes in fair value relating to assets still held at end of year	$ —	$ 6,612

Note 18 - Commitments and Contingencies

The following table presents our off-balance-sheet commitments at their notional amounts.

	December 31, 2019		
Type of Commitment	Expire within one year	Expire after one year	Total
Letters of credit outstanding	$ 323,619	$ 125,717	$ 449,336
Unused lines of credit (1)	1,011,934	—	1,011,934
Commitments to fund additional advances (2)	5,000	—	5,000
Commitments to fund or purchase mortgage loans, net (3)	70,693	—	70,693
Unsettled discount notes, at par	400,000	—	400,000

(1) Maximum line of credit amount for any member is $50,000.
(2) Generally for periods up to six months.
(3) Generally for periods up to 91 days.

Commitments to Extend Credit. A standby letter of credit is a financing arrangement between us and one of our members for which we charge the member a commitment fee. If we are required to make a payment for a beneficiary's draw, the payment amount is converted into a collateralized advance to the member. Substantially all of these standby letters of credit, including related commitments, range from 3 months to 20 years, although some are renewable at our option. The carrying value of guarantees (commitment fees) related to standby letters of credit is recorded in other liabilities and totaled $2,915 at December 31, 2019.

Lines of credit allow members to fund short-term cash needs (up to one year) without submitting a new application for each request for funds.

We monitor the creditworthiness of our standby letters of credit and lines of credit based on an evaluation of the financial condition of our members. In addition, commitments to extend credit are fully collateralized at the time of issuance. We have established parameters for the measurement, review, classification, and monitoring of credit risk related to these two products. Based on credit analyses performed by us as well as collateral requirements, we have not deemed it necessary to record any additional liability for these commitments. For more information, see *Note 7 - Allowance for Credit Losses*.

Commitments to Fund or Purchase Mortgage Loans. Commitments that unconditionally obligate us to fund or purchase mortgage loans are generally for periods not to exceed 91 days. Such commitments are reported as derivative assets or derivative liabilities at their estimated fair value and are reported net of participating interests sold to other FHLBanks.

Pledged Collateral. At December 31, 2019 and 2018, we had pledged cash collateral, at par, of $463,780 and $127,942, respectively, to counterparties and clearing agents. At December 31, 2019 and 2018, we had not pledged any securities as collateral.

Legal Proceedings. We are subject to legal proceedings arising in the normal course of business. We record an accrual for a loss contingency when it is probable that a loss for which we could be liable has been incurred and the amount can be reasonably estimated. After consultation with legal counsel, management does not anticipate that the ultimate liability, if any, arising out of these proceedings could have a material effect on our financial condition, results of operations or cash flows.

In 2010, we filed a complaint asserting claims against several entities for negligent misrepresentation and violations of state and federal securities law occurring in connection with the sale of private-label RMBS to us. In 2013, 2014 and 2015, we executed confidential settlement agreements with certain defendants in this litigation, pursuant to which we dismissed pending claims against, and provided legal releases to, certain entities with respect to all applicable securities at issue in the litigation, in consideration of our receipt of cash payments from or on behalf of those defendants. We had previously dismissed all the complaint as to the other named defendants. As a result, all proceedings in the RMBS litigation we filed have been concluded. Cash settlement payments, net of legal fees and litigation expenses, totaled $91, $407, and $530 for the years ended December 31, 2019, 2018, and 2017, respectively, and were recorded in other income.

Additional discussion of other commitments and contingencies is provided in *Note 5 - Advances; Note 6 - Mortgage Loans Held for Portfolio; Note 9 - Derivatives and Hedging Activities; Note 11 - Consolidated Obligations; Note 13 - Capital;* and *Note 17 - Estimated Fair Values*.

($ amounts in thousands unless otherwise indicated)

Note 19 - Related Party and Other Transactions

Transactions with Related Parties. We are a cooperative whose members and former members (or legal successors) own all of our outstanding capital stock. Former members (including certain non-members) are required to maintain their investment in our capital stock until their outstanding business transactions with us have matured or are paid off and their capital stock is redeemed in accordance with our capital plan and regulatory requirements. For more information, see *Note 13 - Capital*.

Under GAAP, transactions with related parties include transactions with principal owners, i.e, owners of more than 10% of the voting interests of the entity. Due to the statutory limits on members' voting rights and the number of members in our Bank, no shareholder owned more than 10 percent of the total voting interests as of and for the three-year period ended December 31, 2019. Therefore, the Bank had no transactions with principal owners for any of the periods presented.

Under GAAP, transactions with related parties also include transactions with management. Management is defined as persons who are responsible for achieving the objectives of the entity and who have the authority to establish policies and make decisions by which those objectives are to be pursued. For this purpose, management typically includes those who serve on our board of directors. The Bank provides, in the ordinary course of its business, products and services to members whose officers or directors may also serve as directors of the Bank, i.e., directors' financial institutions. However, Finance Agency regulations require that transactions with directors' financial institutions be made on the same terms as those with any other member. Therefore, all of our transactions with directors' financial institutions are subject to the same eligibility and credit criteria, as well as the same conditions, as comparable transactions with all other members.

The following table presents the aggregate outstanding balances of capital stock and advances for directors' financial institutions and their balances as a percent of the total balances on our statement of condition.

	December 31, 2019		December 31, 2018	
Balances with Directors' Financial Institutions	**Par value**	**% of Total**	**Par value**	**% of Total**
Capital stock	$ 57,133	2 %	$ 43,315	2 %
Advances	698,699	2 %	600,869	2 %

The par values at December 31, 2019 reflect changes in the composition of directors' financial institutions effective January 1, 2019, due to changes in board membership resulting from the 2018 director election, and a change in a director's affiliation.

The following table presents our transactions with directors' financial institutions, taking into account the beginning and ending dates of the directors' terms, merger activity and other changes in the composition of directors' financial institutions.

	Years Ended December 31,		
Transactions with Directors' Financial Institutions	**2019**	**2018**	**2017**
Net capital stock issuances (redemptions and repurchases)	$ 6,729	$ 6,328	$ 3,912
Net advances (repayments)	203,078	23,550	79,751
Mortgage loan purchases	30,610	40,038	33,274

($ amounts in thousands unless otherwise indicated)

Transactions with Members and Former Members. Substantially all advances are made to members, and all whole mortgage loans held for portfolio are purchased from members. We also maintain demand deposit accounts for members, primarily to facilitate settlement activities that are directly related to advances or mortgage loan purchases. Such transactions with members are entered into in the ordinary course of business. In addition, we may purchase investments in federal funds sold, securities purchased under agreements to resell, certificates of deposit, and MBS from members or their affiliates. All purchases are transacted at market prices without preference to the status of the counterparty or the issuer of the security as a member, nonmember, or affiliate thereof.

Under our AHP, we provide subsidies to members, which may be in the form of direct grants or below-market-rate advances. All AHP subsidies are made in the ordinary course of business. Under our Community Investment Program and our Community Investment Cash Advances program, we provide subsidies in the form of below-market-rate advances to members or standby letters of credit to members for community lending and economic development projects. All Community Investment Cash Advances subsidies are made in the ordinary course of business.

Transactions with Other FHLBanks. Occasionally, we loan or borrow short-term funds to/from other FHLBanks. The following table presents the loans to/borrowings from other FHLBanks.

	Years Ended December 31,		
Loans to other FHLBanks	**2019**	**2018**	**2017**
Disbursements	$ —	$ (400,000)	$ (100,000)
Principal repayments	—	400,000	100,000
Borrowings from other FHLBanks			
Proceeds from borrowings	$ 250,000	$ —	$ —
Principal repayments	(250,000)	—	—

There were no loans to or borrowings from other FHLBanks that remained outstanding at December 31, 2019 or 2018.

Transactions with the Office of Finance. Our proportionate share of the cost of operating the Office of Finance is identified in our statement of income.

DEFINED TERMS

ABS: Asset-Backed Securities
Advance: Secured loan to members, former members or Housing Associates
AFS: Available-for-Sale
Agency: GSE and Ginnie Mae
AHP: Affordable Housing Program
AMA: Acquired Member Assets
AOCI: Accumulated Other Comprehensive Income (Loss)
Bank Act: Federal Home Loan Bank Act of 1932, as amended
bps: basis points
CDFI: Community Development Financial Institution
CE: Credit Enhancement
CFI: Community Financial Institution, an FDIC-insured depository institution with average total assets below an annually-adjusted limit established by the Finance Agency Director based on the Consumer Price Index
CFPB: Bureau of Consumer Financial Protection
CFTC: United States Commodity Futures Trading Commission
Clearinghouse: A United States Commodity Futures Trading Commission-registered derivatives clearing organization
CME: CME Clearing
CMO: Collateralized Mortgage Obligation
CO bond: Consolidated Obligation bond
DB Plan: Pentegra Defined Benefit Pension Plan for Financial Institutions, as amended
DC Plan: Pentegra Defined Contribution Retirement Savings Plan for Financial Institutions, as amended
DDCP: Directors' Deferred Compensation Plan
Dodd-Frank Act: Dodd-Frank Wall Street Reform and Consumer Protection Act, as amended
Exchange Act: Securities Exchange Act of 1934, as amended
Fannie Mae: Federal National Mortgage Association
FASB: Financial Accounting Standards Board
FDIC: Federal Deposit Insurance Corporation
FHA: Federal Housing Administration
FHLBank: A Federal Home Loan Bank
FHLBanks: The 11 Federal Home Loan Banks or a subset thereof
FHLBank System: The 11 Federal Home Loan Banks and the Office of Finance
FICO®: Fair Isaac Corporation, the creators of the FICO credit score
Final Membership Rule: Final Rule on FHLBank Membership issued by the Federal Housing Finance Agency effective February 19, 2016
Finance Agency: Federal Housing Finance Agency, successor to Finance Board
Finance Board: Federal Housing Finance Board, predecessor to Finance Agency
FLA: First Loss Account
FOMC: Federal Open Market Committee
Form 8-K: Current Report on Form 8-K as filed with the SEC under the Exchange Act
Form 10-K: Annual Report on Form 10-K as filed with the SEC under the Exchange Act
Form 10-Q: Quarterly Report on Form 10-Q as filed with the SEC under the Exchange Act
FRB: Federal Reserve Board
Freddie Mac: Federal Home Loan Mortgage Corporation
GAAP: Generally Accepted Accounting Principles in the United States of America
Ginnie Mae: Government National Mortgage Association
GLB Act: Gramm-Leach-Bliley Act of 1999, as amended
GSE: United States Government-Sponsored Enterprise
HERA: Housing and Economic Recovery Act of 2008, as amended
Housing Associate: Approved lender under Title II of the National Housing Act of 1934 that is either a government agency or is chartered under federal or state law with rights and powers similar to those of a corporation
HTM: Held-to-Maturity
HUD: United States Department of Housing and Urban Development
JCE Agreement: Joint Capital Enhancement Agreement, as amended, among the 11 FHLBanks
KESP: Key Employee Severance Policy
LCH: LCH.Clearnet LLC
LIBOR: London Interbank Offered Rate
LRA: Lender Risk Account

LTV: Loan-to-Value
MAP-21: Moving Ahead for Progress in the 21st Century Act, enacted on July 6, 2012
MBS: Mortgage-Backed Securities
MCC: Master Commitment Contract
MDC: Mandatory Delivery Commitment
Moody's: Moody's Investor Services
MPF: Mortgage Partnership Finance®
MPP: Mortgage Purchase Program, including Original and Advantage unless indicated otherwise
MRCS: Mandatorily Redeemable Capital Stock
MVE: Market Value of Equity
NRSRO: Nationally Recognized Statistical Rating Organization
OCC: Office of the Comptroller of the Currency
OCI: Other Comprehensive Income (Loss)
OIS: Overnight-Indexed Swap
ORERC: Other Real Estate-Related Collateral
OTTI: Other-Than-Temporary Impairment or -Temporarily Impaired (as the context indicates)
PFI: Participating Financial Institution
PMI: Primary Mortgage Insurance
REMIC: Real Estate Mortgage Investment Conduit
REO: Real Estate Owned
RMBS: Residential Mortgage-Backed Securities
S&P: Standard & Poor's Rating Service
Safety and Soundness Act: Federal Housing Enterprises Financial Safety and Soundness Act of 1992, as amended
SEC: Securities and Exchange Commission
Securities Act: Securities Act of 1933, as amended
SERP: Federal Home Loan Bank of Indianapolis 2005 Supplemental Executive Retirement Plan and/or a similar frozen plan
SETP: Federal Home Loan Bank of Indianapolis 2016 Supplemental Executive Thrift Plan, as amended
SMI: Supplemental Mortgage Insurance
SOFR: Secured Overnight Financing Rate
TBA: To Be Announced, a forward contract for the purchase or sale of MBS at a future agreed-upon date for an established price
TDR: Troubled Debt Restructuring
TVA: Tennessee Valley Authority
UPB: Unpaid Principal Balance
VaR: Value at Risk
WAIR: Weighted-Average Interest Rate

Supplementary Data

Supplementary unaudited financial data for each full quarter within the years ended December 31, 2019 and 2018 are included in the tables below ($ amounts in millions).

Statement of Income	1st Quarter 2019	2nd Quarter 2019	3rd Quarter 2019	4th Quarter 2019	2019 Total
Interest income	$ 446	$ 474	$ 439	$ 394	$ 1,753
Interest expense	388	414	389	324	1,515
Net interest income	58	60	50	70	238
Provision for (reversal of) credit losses	—	—	—	—	—
Net interest income after provision for credit losses	58	60	50	70	238
Other income (loss)	3	3	3	11	20
Other expenses	23	24	24	28	99
Income before assessments	38	39	29	53	159
AHP assessments	4	4	3	6	17
Net income	$ 34	$ 35	$ 26	$ 47	$ 142

Statement of Income	1st Quarter 2018	2nd Quarter 2018	3rd Quarter 2018	4th Quarter 2018	2018 Total
Interest income	$ 323	$ 376	$ 420	$ 446	$ 1,565
Interest expense	253	306	347	371	1,277
Net interest income	70	70	73	75	288
Provision for (reversal of) credit losses	—	—	—	—	—
Net interest income after provision for credit losses	70	70	73	75	288
Other income (loss)	6	31	(7)	(9)	21
Other expenses	22	24	23	23	92
Income before assessments	54	77	43	43	217
AHP assessments	6	8	4	4	22
Net income	$ 48	$ 69	$ 39	$ 39	$ 195

Net gains (losses) related to fair-value hedge ineffectiveness previously presented in other income is presented in net interest income for the year ended December 31, 2019. Prior period amounts have not been reclassified. For more information, see *Note 2 - Recently Adopted and Issued Accounting Guidance*.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

ITEM 9A. CONTROLS AND PROCEDURES

We use acronyms and terms throughout this Item that are defined herein or in the *Defined Terms*.

Evaluation of Disclosure Controls and Procedures

We are responsible for establishing and maintaining disclosure controls and procedures that are designed to ensure that information required to be disclosed by us in our reports filed under the Exchange Act is: (a) recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms; and (b) accumulated and communicated to our management, including our principal executive officer, principal financial officer, and principal accounting officer, to allow timely decisions regarding required disclosures.

As of December 31, 2019, we conducted an evaluation, under the supervision and with the participation of our management, including our Chief Executive Officer (the principal executive officer), Chief Financial Officer (the principal financial officer) and Chief Accounting Officer (the principal accounting officer), of the effectiveness of the design and operation of our disclosure controls and procedures pursuant to Rule 13a-15 of the Exchange Act. Based on that evaluation, our Chief Executive Officer, Chief Financial Officer and Chief Accounting Officer concluded that our disclosure controls and procedures were effective as of December 31, 2019.

Internal Control Over Financial Reporting

Changes in Internal Control Over Financial Reporting. There were no changes in our internal control over financial reporting, as defined in Rules 13a-15(f) and 15(d)-15(f) of the Exchange Act, that occurred during our most recently completed fiscal quarter that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Limitations on the Effectiveness of Controls. We do not expect that our disclosure controls and procedures and other internal controls will prevent all error and fraud. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, have been detected. These inherent limitations include the realities that judgments in decision making can be faulty and that breakdowns can occur because of simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people, or by management override of the controls. The design of any system of controls is also based in part upon certain assumptions about the likelihood of future events, and there can only be reasonable assurance that any design will succeed in achieving its stated goals under all potential future conditions. Additionally, over time, controls may become inadequate because of changes in conditions, or the degree of compliance with the policies or procedures may deteriorate. Because of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected.

ITEM 9B. OTHER INFORMATION

None.

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

We use acronyms and terms throughout this Item that are defined herein or in the *Defined Terms*.

Board of Directors

The Bank Act divides FHLBank directorships into two categories, "member" directorships and "independent" directorships. Both types of directorships are filled by a vote of the members. Elections for member directors are held on a state-by-state basis. Member directors are elected by a plurality vote of the members in their state. Independent directors are elected at-large by all the members in the FHLBank district without regard to the state. No member of management of an FHLBank may serve as a director of an FHLBank.

Under the Bank Act, member directorships must make up a majority of the board of directors' seats, while the independent directorships must comprise at least 40% of the entire board. A Finance Agency Order issued June 17, 2019 provides that we have 17 seats on our board of directors for 2020, consisting of five Indiana member directors, four Michigan member directors, and eight independent directors. The term of office for directors is four years, unless otherwise adjusted by the Director in order to achieve an appropriate staggering of terms, with approximately one-fourth of the directors' terms expiring each year. Directors may not serve more than three consecutive full terms.

Finance Agency regulations permit, but do not require, the board of directors to conduct an annual assessment of the skills and experience possessed by the board as a whole and to determine whether the capabilities of the board would be enhanced through the addition of individuals with particular skills and experience. We may identify those qualifications and inform the voting members as part of our nomination and balloting process; however, by regulation as described below, we may not exclude a member director nominee from the election ballot on the basis of those qualifications. For the 2019 director elections, our board listed in its request for nominations certain desirable candidate attributes and experiences, personal characteristics, and other competencies, but no particular qualifications beyond the eligibility criteria were required as part of the nomination, balloting and election process.

Finance Agency regulations require each FHLBank to develop, implement, and maintain policies and procedures to ensure, to the maximum extent possible in balance with financially safe and sound business practices, the consideration of minorities, women, and individuals with disabilities for employment, and consideration of minority-, women-, and disabled-owned businesses to be engaged for all business and activities. In particular, those policies and procedures shall (among other things) encourage the consideration of diversity in nominating or soliciting nominees for positions on our board of directors.

Nomination of Member Directors. The Bank Act and Finance Agency regulations require that member director nominees meet certain statutory and regulatory criteria in order to be eligible to be elected and serve as directors. To be eligible, an individual must: (i) be an officer or director of a member institution located in the state in which there is an open member director position; (ii) represent a member institution that is in compliance with the minimum capital requirements established by its regulator; and (iii) be a United States citizen. These criteria are the only eligibility and qualifications criteria that member directors must meet.

Each eligible institution may nominate representatives from member institutions in its state to serve as member directors. Only our shareholders may nominate and elect member directors. Our board of directors is not permitted to nominate or elect member directors, except to fill a vacancy for the remainder of an unexpired term or to fill a vacancy for which no nominations were received. With respect to member directors, no director, officer, employee, attorney or agent of our Bank (except in his or her personal capacity) may, directly or indirectly, support the nomination or election of a particular individual for a member directorship. Finance Agency regulations do not require member institutions to communicate the reasons for their nominations, and we have no power to require them to do so.

Nomination of Independent Directors. Independent director nominees also must meet certain statutory and regulatory eligibility criteria. Each independent director must be a United States citizen and a bona fide resident of Michigan or Indiana. Before nominating an individual for an independent directorship, other than for a public interest directorship, our board must determine that the nominee's knowledge or experience is commensurate with that needed to oversee a financial institution with a size and complexity that is comparable to that of our Bank. The Bank Act and Finance Agency regulations prohibit an independent director from serving as a director, officer, or employee of a member of the FHLBank on whose board the director sits, or of a recipient of an advance from that FHLBank, or as an officer of any FHLBank, and would also prohibit the nomination or election as an independent director of an individual serving in any such capacity.

Under the Bank Act, there are two types of independent directors:

- **Public interest directors** - We are required to have at least two public interest directors. Each must have more than four years of experience representing consumer or community interests in banking services, credit needs, housing, or consumer financial protections.
- **Other independent directors** - Independent directors must have demonstrated knowledge or experience in auditing or accounting, derivatives, financial management, organizational management, project development or risk management practices, or other expertise established by Finance Agency regulations.

Pursuant to the Bank Act and Finance Agency regulations, the board of directors, after consultation with our Affordable Housing Advisory Council, nominates candidates for the independent director positions. Individuals interested in serving as independent directors may submit an application for consideration by the Executive/Governance Committee, which performs certain functions for our board that are similar to those of a board nominating committee with respect to the nomination of candidates for election as independent directors. The application form is available on our website at www.fhlbi.com, by clicking on "Resources," "Corporate Governance" and "Board of Directors." Our members may also nominate independent director candidates. The conclusion that an independent director nominee may qualify to serve as a director is based upon the nominee's satisfaction of the eligibility criteria listed above and verified through application and eligibility certification forms prescribed by the Finance Agency. The board then submits the slated independent director candidates to the Finance Agency for review and comment. Once the Finance Agency has accepted candidates for the independent director positions, we hold a district-wide election for those positions.

Under Finance Agency regulations, if the board of directors nominates only one independent director candidate for each open seat, each candidate must receive at least 20% of the votes that are eligible to be cast in order to be elected. If there is more than one candidate for each open independent director seat, then such requirement does not apply.

2019 Member and Independent Director Elections. The Bank Act and Finance Agency regulations set forth the voting rights and processes with respect to the election of member directors and independent directors. The board of directors does not solicit proxies, nor are eligible institutions permitted to solicit or use proxies to cast their votes in an election for directors. For the election of both member directors and independent directors, each eligible institution is entitled to cast one vote for each share of stock that it was required to hold as of the record date (i.e., December 31 of the year prior to the year in which the election is held); however, the number of votes that a member institution may cast for each directorship cannot exceed the average number of shares of stock that were required to be held by all member institutions located in the applicable state on the record date.

The only matter submitted to a vote of our shareholders in 2019 was the fourth quarter election of two independent directors. By Finance Agency regulation, two Michigan member director nominees were deemed elected without a shareholder vote. No meeting of the members was held with regard to the 2019 election. The 2019 election was conducted in accordance with the Bank Act and Finance Agency regulations.

Board of Directors Vacancies. If a vacancy occurs on an FHLBank's board of directors, the board, by a majority vote of the remaining directors, shall elect an individual to fill the unexpired term of office of the vacant directorship. Any individual so elected must satisfy all eligibility requirements of the Bank Act and Finance Agency regulations applicable to his or her predecessor. Before an election to fill a vacant directorship occurs, the FHLBank must obtain an executed eligibility certification form from each individual being considered to fill the vacancy, and must verify each individual's eligibility. The FHLBank must also verify the qualifications of any potential independent director. Before electing an independent director, the FHLBank must deliver to the Finance Agency for review a copy of the application form of each individual being considered by the board. Promptly following an election to fill a vacancy on the board, the FHLBank must send a notice to its members and the Finance Agency providing information about the elected director, including his or her name, company affiliation, title, term expiration date and, for member directors, the voting state that the director represents.

Our directors are listed in the table below, including those who served in 2019 or serve as of March 10, 2020.

Name	Age	Director Since	Term Expiration	Independent (elected by District) or Member (elected by State)
Dan L. Moore, Chair (1)	69	1/1/2011	12/31/2022	Member (IN)
James L. Logue, III Vice Chair (1)	67	4/24/2007	12/31/2021	Independent
Brian D. J. Boike	43	1/1/2020	12/31/2023	Member (MI)
Jonathan P. Bradford (2)	70	4/24/2007	12/31/2020	Independent
Ronald Brown	55	1/1/2018	12/31/2021	Member (IN)
Charlotte C. Decker	55	1/1/2017	12/31/2020	Independent
Robert M. Fisher	59	1/1/2019	12/31/2022	Member (MI)
Karen F. Gregerson	59	1/1/2013	12/31/2020	Member (IN)
Michael J. Hannigan, Jr.	75	4/24/2007	12/31/2021	Independent
Jeffrey G. Jackson	49	1/1/2019	12/31/2022	Member (MI)
Carl E. Liedholm	79	1/1/2009	12/31/2020	Independent
Robert D. Long	65	4/24/2007	12/31/2023	Independent
Michael J. Manica	71	1/1/2016	12/31/2023	Member (MI)
Larry W. Myers	61	1/1/2018	12/31/2021	Member (IN)
Christine Coady Narayanan (3)	56	1/1/2008	12/31/2023	Independent
John L. Skibski	55	1/1/2008	12/31/2019	Member (MI)
Larry A. Swank	77	1/1/2009	12/31/2022	Independent
Ryan M. Warner	63	1/1/2017	12/31/2020	Member (IN)

(1) Our board of directors, with input from the Executive/Governance Committee, elects a Chair and a Vice Chair to two-year terms. On November 16, 2018, our board elected Mr. Moore as Chair and Mr. Logue as Vice Chair for 2019-2020.

(2) Public Interest Director designation, effective April 24, 2007, throughout current term.

(3) Public Interest Director designation, effective May 15, 2014, throughout current term.

Each of our directors serves on one or more committees of our board. Committee assignments are made annually, based on board consensus, with input from the President - CEO. Committee assignments take into consideration several factors, including the committees' responsibilities and needs, directors' preferences and expertise, the benefits of rotations in committee memberships, and balancing the committees' responsibilities among all directors. The following table presents the committees on which each director serves as of March 10, 2020, as well as whether the director is the chair (C), vice chair (VC), member (x), Ex-Officio member (EO), or alternate (A) of the respective committee.

Name	Executive / Governance	Finance/ Budget	Affordable Housing	Human Resources	Audit	Risk Oversight	Technology
Dan L. Moore	C	EO	EO	EO	EO	EO	EO
James L. Logue III	VC	x	x				
Brian D. J. Boike		x				x	x
Jonathan P. Bradford	x		VC				x
Ronald Brown			x	x		x	
Charlotte C. Decker				x		x	C
Robert M. Fisher		x		VC	x		
Karen F. Gregerson	x				x	C	
Michael J. Hannigan, Jr.			x	x			VC
Jeffrey G. Jackson			x		x		x
Carl E. Liedholm		C	x			x	
Robert D. Long				x	C		x
Michael J. Manica	x	VC				x	
Larry W. Myers	x				x	VC	
Christine Coady Narayanan	x			C	x		
Larry A. Swank	x	x	C				
Ryan M. Warner	A	x			VC		

It has been the practice of the board of directors to not appoint any director as Chair of more than one Committee.

The following is a summary of the background and business experience of each of our directors. Except as otherwise indicated, for at least the last five years, each director has been engaged in his or her principal occupation as described below.

Dan L. Moore is the President and CEO of Home Bank SB in Martinsville, Indiana, and has served in that position since 2006. Prior to that time, Mr. Moore served as that bank's Executive Vice President and Chief Operating Officer. Mr. Moore has also served as a director of Home Bank SB since 2000. He has been employed by Home Bank SB since 1978. Mr. Moore serves on the board of directors of Stability First, a not-for-profit organization in Martinsville, Indiana, established to address issues associated with the alleviation of poverty. He holds a bachelor of science degree from Indiana State University and a master of science degree in management from Indiana Wesleyan University.

James L. Logue III is the Chief Public Policy Officer of Cinnaire Corp., formerly Great Lakes Capital Fund, a housing finance and development company in Lansing, Michigan, and has held that position since 2018. He was appointed as Chief Strategy Officer in 2016 after having served as Chief Operating Officer of Cinnaire since 2003. Prior to that, Mr. Logue served as the Executive Director of the Michigan State Housing Development Authority beginning in 1991. Mr. Logue has over 40 years' experience in affordable housing, finance, commercial real estate and economic development matters. He served as Deputy Assistant Secretary for Multifamily Housing Programs at HUD in 1988 - 1989, and has been involved in various capacities with the issuance of housing bonds and the management of multi-billion dollar housing portfolios. Mr. Logue serves as a board member and is chair of the Audit Committee of the National Housing Trust, Washington, D.C. Mr. Logue holds a bachelor of arts degree from Kean College.

Brian D. J. Boike is the Executive Vice President & Treasurer of Flagstar Bank, FSB, a subsidiary of Flagstar Bancorp, an NYSE-listed bank holding company located in Troy, Michigan, and has held that position since October 2014. Prior to that, Mr. Boike was Senior Vice President & Director of Capital Planning and Stress Testing of FirstMerit Bank, a subsidiary of FirstMerit Corporation (acquired by Huntington Bancshares Incorporated in August 2016), from April 2013 until October 2014. Previously, he was the Senior Vice President & Treasurer of Citizens Bank, a subsidiary of Citizens Republic Bancorp, Inc. in Flint, Michigan (acquired by FirstMerit Corporation in April 2013), from November 2009 until April 2013 and prior to that, Vice President & Asset Liability Manager from 2004 to November 2009 of Citizens Bank. He is a member of the board of trustees and chair of the finance committee for Flint Powers Catholic High School in Flint, Michigan. Mr. Boike holds a bachelor of arts degree in economics from the University of Michigan and a Masters of Arts in Political Economy degree from Boston University. Mr. Boike is also a CFA.

Jonathan P. Bradford is the owner and President of Development and Construction Resources, LLC in Grand Rapids, Michigan, which provides consulting services for non-profit companies engaged in affordable housing and community development activities. In addition, Mr. Bradford is Vice President of the board of the Michigan Non-Profit Housing Corporation, which owns several multi-family housing developments in Grand Rapids and Detroit, Michigan. Mr. Bradford retired in September 2015 as President and CEO of Inner City Christian Federation, in Grand Rapids, Michigan, a position he had held since 1981. Inner City Christian Federation is involved in the development of affordable housing, as well as housing education and counseling. Mr. Bradford holds a bachelor of arts degree from Calvin College and a master of social work degree from the University of Michigan with a concentration in housing and community development policy and planning. He is also licensed in the State of Michigan as a residential building contractor.

Ronald Brown is Senior Vice President - General Counsel and a member of the board of directors of United Fidelity Bank, F.S.B., in Evansville, Indiana, and is Senior Vice President - General Counsel of its affiliated thrift holding company, Pedcor Financial, LLC, in Carmel, Indiana. He has held those positions since 2015 and 2005, respectively. He is also a member of the boards of two other affiliated companies, Pedcor Insurance Company and Pedcor Assurance Company. Mr. Brown holds a bachelor of arts degree from the University of Southern California and a juris doctor degree from Indiana University.

Charlotte C. Decker is Chief Information Technology Officer for the UAW Retiree Medical Benefits Trust, in Detroit, Michigan, and has held that position since December 2014. Ms. Decker also served as a Senior Consultant for Data Consulting Group, an information technology consulting services company in Detroit, Michigan, from August 2014 through December 2015. Prior to that, she was Vice President - Chief Technology Officer for Auto Club Group, an insurance and financial services company in Dearborn, Michigan, from September 2008 to June 2014. She was a Director of Global Computing for General Motors Corporation in Detroit, Michigan, from 2004 to 2007. Ms. Decker holds a bachelor of science degree, a master of science degree, and a master of business administration degree, each from the University of Michigan.

Robert M. Fisher is President - CEO of Lake-Osceola State Bank in Baldwin, Michigan, and has held that position since 2018. Prior to that, Mr. Fisher served as President - Chief Operating Officer of that bank since 2005. He also serves as the Vice Chair of that bank's board of directors. Mr. Fisher is chair of the board of Baldwin Family Health Care, a community healthcare program, and also chair of the board of education for the Walkerville, Michigan Public Schools. Mr. Fisher holds a bachelor of business leadership degree from Baker College. The board of directors has determined that Mr. Fisher is an Audit Committee Financial Expert due primarily to his experience as President - CEO and Chief Operating Officer of a commercial bank.

Karen F. Gregerson is the President and CEO of The Farmers Bank in Frankfort, Indiana, and President of The Farmers Bancorp, a bank holding company in Frankfort, Indiana, having been appointed to those positions in April 2016. She is also a director of both entities. Prior to those appointments, Ms. Gregerson was Senior Vice President and Chief Financial Officer of STAR Financial Bank in Fort Wayne, Indiana, a position she held beginning in 1997. Ms. Gregerson holds a bachelor of science degree from Ball State University and a master of science degree in organizational leadership from the Indiana Institute of Technology. The board of directors has determined that Ms. Gregerson is an Audit Committee Financial Expert due primarily to her experience as a director, CEO and Chief Financial Officer of a commercial bank.

Michael J. Hannigan, Jr. has been employed in mortgage banking and related businesses for more than 30 years. Currently, he is the President of The Hannigan Company, LLC, a real estate consulting company in Carmel, Indiana, and has held that position since 2007 when he formed the company. From 1986 to 2006, Mr. Hannigan was the Executive Vice President and a director of The Precedent Companies, Inc., a residential real estate company. Mr. Hannigan previously served as a Senior Vice President and director of Union Federal Savings Bank. During his career, Mr. Hannigan has served as a director and founding partner of several companies engaged in residential development, home building, private water utility service, industrial development, and private capital acquisition. Mr. Hannigan is a director of the Indiana Builders Association, a trade association. He holds a bachelor of business administration degree from the University of Notre Dame. He has previously served as Vice Chair of our board of directors and Vice Chair of the Council of FHLBanks.

Jeffrey G. Jackson is the Chief Lending Officer of Michigan State University Federal Credit Union, in East Lansing, Michigan, and has held that position since July 2015. Prior to that appointment, Mr. Jackson was Senior Vice President - Business Lending and Operations during 2015 and Vice President - Payment Systems and Support Services from 2012 through 2014. He has also held officer positions in Member Services, Finance and Internal Audit since he began employment with Michigan State University Federal Credit Union in 1997. Before joining that institution, he held positions with public accounting firms. Mr. Jackson also serves on the boards of directors of Child and Family Charities and the Michigan Credit Union Foundation, both located in Lansing, Michigan. Mr. Jackson maintains his CPA designation. He holds a bachelor of business administration degree from the University of Michigan, and a masters of business administration degree from Michigan State University. The board of directors has determined that Mr. Jackson is an Audit Committee Financial Expert primarily due to his broad experience as an officer of a financial institution and his experience in public accounting.

Carl E. Liedholm, PhD, is a Professor of Economics at Michigan State University in East Lansing, Michigan, and has held that position since 1965. In June 2018 he was appointed Professor Emeritus. He has taught graduate and post-graduate courses and presented seminars on international finance, banking and housing matters. Mr. Liedholm has over forty years' experience in generating and analyzing financial and other performance data from enterprises in over two dozen countries. Mr. Liedholm holds a bachelor of arts degree from Pomona College and a doctoral degree from the University of Michigan. He has published numerous books and monographs on economics and related matters.

Robert D. Long retired from KPMG LLP on December 31, 2006, where he had been the Office Managing Partner in the Indianapolis, Indiana office since 1999, and had served as an Audit Partner for KPMG since 1988. As an audit partner, Mr. Long served a number of companies with public, private and cooperative ownership structures in a variety of industries, including banking, finance and insurance. Mr. Long maintains his CPA designation. Since December 2014, Mr. Long has been a member of the board, Chair of the Audit Committee and Audit Committee financial expert for Celadon Group, Inc., a transportation and logistics company. From 2010 to 2015, Mr. Long was a member of the board and Chair of the Audit Committee for Beefeaters Holding Company, Inc., a pet food company. From 2009 to 2014, Mr. Long was a member of the board and Chair of the Audit Committee for Schulman Associates Institutional Review Board, Inc., a company providing independent review services to pharmaceutical and clinical research companies. He holds a bachelor of science degree from Indiana University. The board of directors has determined that Mr. Long is an Audit Committee Financial Expert due primarily to his previous experience as an audit partner at a major public accounting firm and as the Audit Committee chair of multiple companies.

Michael J. Manica is the Vice Chair and a director of United Bank Financial Corporation, a bank holding company, and is Vice Chair and a director of its banking subsidiary, United Bank of Michigan, in Grand Rapids, Michigan, and has held those positions since July 2019. Before his appointments as Vice Chair, Mr. Manica had served as a director and President and Chief Executive Officer beginning in March 2014, and as President and Chief Operating Officer beginning in 2000. His career with United Bank of Michigan began in 1980. He holds a bachelor of arts degree from the University of Michigan and completed the Graduate School of Banking program at the University of Wisconsin.

Larry W. Myers is the President and CEO of First Savings Financial Group, Inc., a bank holding company, and its banking subsidiary, First Savings Bank, in Clarksville, Indiana, and has held those positions since 2009 and 2007, respectively. Previously he served as the Chief Operations Officer of First Savings Bank, and has served as a director of that bank since 2005. Mr. Myers has over 35 years' experience in retail banking, commercial lending and wealth management. Mr. Myers has served as Chair of the Indiana Bankers Association, and currently serves on the FHLBank Committee of the American Bankers Association. Mr. Myers holds a bachelor of science degree and a masters of business administration degree, both from the University of Kentucky. The board of directors has determined that Mr. Myers is an Audit Committee Financial Expert due primarily to his extensive experience as director, CEO, and chief operations officer of a commercial bank.

Christine Coady Narayanan is the President and CEO of Opportunity Resource Fund, a U.S. Treasury-certified CDFI with offices in Lansing, Grand Rapids, and Detroit, Michigan, having served in that position since October 2004. Opportunity Resource Fund is a non-profit CDFI that provides social impact investment opportunities for individuals and corporations throughout Michigan and engages in lending for affordable housing and community development purposes. As such, Opportunity Resource Fund is licensed and regulated by the Michigan Department of Insurance and Financial Services. Ms. Narayanan has held various positions with the Opportunity Resource Fund and its predecessor organization since 1989, and served as its Executive Director from 1997 to 2004. She holds an associate degree from Lansing Community College and a bachelor of arts degree from Spring Arbor University. Ms. Narayanan is a graduate of the National Internship in Community Economic Development and Michigan Municipal League's Elected Officials Academy and has completed certification through the Indiana University Center of Philanthropy.

Larry A. Swank is Founder, CEO and Chair of Sterling Group, Inc. and affiliated companies in Mishawaka, Indiana. Mr. Swank has served as Chair and CEO of Sterling Group, Inc. since 1976, and served as its President until July 2012. The principal business of that company and its affiliates involves the acquisition, development, construction and management of multi-family housing and storage units. Mr. Swank's company manages 59 properties in 14 states. Mr. Swank has served as a director of the National Association of Home Builders since 1973 and served as a member of its Executive Board for several terms. He also served as Chair of that association's Housing Finance Committee on three separate occasions.

Ryan M. Warner is Chairman and CEO of Bippus State Bank in Huntington, Indiana, and was appointed to that position in April 2019. Previously, Mr. Warner served as President and a director of that bank since 1987. He has been employed by that bank since 1977. Mr. Warner is a member of the Huntington County Economic Development board of directors, having previously served as its President and Treasurer. Mr. Warner holds an associate degree in accounting from International Business College, and completed the Graduate School of Banking program at the University of Wisconsin. The board of directors has determined that Mr. Warner is an Audit Committee Financial Expert due primarily to his extensive experience as Chairman and CEO, President and in other senior management capacities in a financial institution.

Audit Committee. Our board of directors has a standing Audit Committee that was comprised of the following directors as of December 31, 2019:

Robert D. Long, Chair, independent director
Ryan M. Warner, Vice Chair
Robert M. Fisher
Jeffrey G. Jackson
Larry W. Myers
Christine Coady Narayanan, independent director
John L. Skibski
Dan L. Moore, Ex-Officio Voting Member

Our board has determined that Mr. Long and Ms. Narayanan are "independent" under the New York Stock Exchange rules definition, and has further determined that no member director may qualify as "independent" under that definition due to the cooperative ownership structure of our Bank by its member institutions. For further discussion about the board's analysis of director independence, see *Item 13. Certain Relationships and Related Transactions, and Director Independence.*

The Bank Act requires the FHLBanks to comply with the substantive audit committee director independence rules applicable to issuers of securities registered under the Exchange Act. Those rules provide that, to be considered an independent member of an audit committee, a director may not be an affiliated person of the registrant. The term "affiliated person" means a person that directly, or indirectly through one or more intermediaries, controls, or is controlled by, or is under common control with, the registrant. The rule provides a "safe harbor," whereby a person will not be deemed an affiliated person if the person is not the beneficial owner, directly or indirectly, of more than 10% of any class of voting securities of the registrant. All of our Audit Committee member directors' institutions presently meet this safe harbor.

Audit Committee Report. Our Audit Committee operates under a written charter adopted by the board of directors that was most recently amended on March 22, 2019. The Audit Committee charter is available on our website by scrolling to the bottom of any web page on www.fhlbi.com and then selecting "Corporate Governance" in the navigation menu. In accordance with its charter, the Audit Committee assists the board in fulfilling its fiduciary responsibilities and overseeing the internal and external audit functions. The Audit Committee is responsible for evaluating the Bank's compliance with laws, regulations, policies and procedures (including the Code of Conduct), and for determining that the Bank has adequate administrative, operating and internal controls. In addition, the Audit Committee is responsible for providing reasonable assurance regarding the integrity of financial and other data used by the board, the Finance Agency, our members and the public. To fulfill these responsibilities, the Audit Committee may, in accordance with its charter, conduct or authorize investigations into any matters within the Committee's scope of responsibilities. The Audit Committee may also retain independent counsel, accountants, or others to assist in any investigation.

The Audit Committee annually reviews its charter and practices and has determined that its charter and practices are consistent with all applicable laws, regulations and policies. During 2019, the Audit Committee met 13 times and, among other matters, also:

- reviewed the scope of and overall plans for the external and internal audit programs;
- reviewed and recommended board approval of our policy with regard to the hiring of former employees of the independent registered public accounting firm;
- reviewed and approved our policy for the pre-approval of audit and permitted non-audit services by the independent registered public accounting firm;
- received reports pursuant to our policy for the submission and confidential treatment of communications from employees and others about accounting, internal controls and auditing matters; and
- reviewed the adequacy of our internal controls, including for purposes of evaluating the fair presentation of our financial statements in connection with certifications made by our principal executive officer, principal financial officer and principal accounting officer.

The Sarbanes-Oxley Act of 2002 requires that the Audit Committee establish and maintain procedures for the confidential submission of employee concerns regarding questionable accounting, internal controls or auditing matters. The Audit Committee has established procedures for the receipt, retention and treatment, on a confidential basis, of any related concerns we receive, including automated notifications from the EthicsPoint reporting system which was implemented to assist the Audit Committee in administering the anonymous complaint procedures. The Audit Committee ensures that the Bank is in compliance with all applicable rules and regulations with respect to the submission to the Audit Committee of anonymous complaints. The Audit Committee encourages employees and third-party individuals and organizations to report concerns about accounting controls, auditing matters or anything else that appears to involve financial or other wrongdoing pertaining to the Bank.

The Bank is one of 11 regional FHLBanks across the United States which, along with the Office of Finance, compose the FHLBank System. Each FHLBank operates as a separate entity with its own management, employees, and board of directors, and each is regulated by the Finance Agency. The Office of Finance has responsibility for the issuance of consolidated obligations on behalf of the FHLBanks, and for publishing combined financial reports of the FHLBanks. Accordingly, the FHLBank System has determined that it is optimal to have the same independent audit firm to coordinate and perform the separate audits of the financial statements of each FHLBank and the FHLBanks' combined financial reports. The FHLBanks and the Office of Finance cooperate in selecting and evaluating the performance of the independent auditor, but the responsibility for the appointment of and oversight of the independent auditor remains solely with the audit committee of each FHLBank and the Office of Finance.

PricewaterhouseCoopers ("PwC") has been the independent auditor for the FHLBank System and the Bank since 1990. The Audit Committee engages in thorough evaluations each year when appointing an independent auditor. In connection with the appointment of the Bank's independent auditor, the Audit Committee's evaluation included consultation with the Audit Committees of the other FHLBanks and the Office of Finance. In the course of these evaluations, the Audit Committee considers, among other factors:

- an analysis of the risks and benefits of retaining the same firm as independent auditor versus engaging a different firm, including consideration of:
    - PwC engagement audit partner, engagement quality review partner and audit team rotation;
    - PwC's tenure as our independent auditor;
    - benefits associated with engaging a different firm as independent auditor; and
    - potential disruption and risks associated with changing the Bank's auditor;
- PwC's familiarity with our operations and businesses, accounting policies and practices and internal control over financial reporting;
- PwC's historical and recent performance of our audit, including feedback from Bank management as to PwC's service and quality;
- an analysis of PwC's known legal risks and significant proceedings;
- both engagement and external data relating to audit quality and performance, including recent Public Company Accounting Oversight Board audit quality inspection reports on PwC and its peer firms;
- the appropriateness of PwC's fees, on both an absolute basis and as compared to fees charged to other banks both within and beyond the FHLBank System and trends therein; and
- the diversity of PwC's ownership and staff assigned to the engagement.

The Audit Committee reviews and approves the amount of fees paid to PwC for audit, audit-related and other services. Audit fees represent fees for professional services provided in connection with the audit of our annual financial statements and internal control over financial reporting and reviews of our quarterly financial statements, regulatory filings, and other SEC matters. The Audit Committee has determined that PwC did not provide any non-audit services that would impair its independence and there are no other matters which cause the Committee to believe PwC is not independent. Based on its evaluation and review, the Audit Committee appointed PwC as our independent registered public accounting firm for the year ended December 31, 2019.

In accordance with SEC rules, audit partners are subject to rotation requirements to limit the number of consecutive years an individual partner may provide service to our Bank. For engagement audit and quality review partners, the maximum number of consecutive years of service in that capacity is five years. The process for selection of our lead audit partner pursuant to this rotation policy involves a meeting between the Chair of the Audit Committee and the candidate(s) for the role, as well as discussion by the full Audit Committee and with management.

Management has the primary responsibility for the integrity and reliability of our financial statements, accounting and financial reporting principles, and internal controls and procedures designed to assure compliance with accounting standards and applicable laws and regulations. An independent registered public accounting firm is responsible for performing an independent audit of our financial statements and of the effectiveness of internal control over financial reporting in accordance with auditing standards promulgated by the Public Company Accounting Oversight Board and standards applicable to financial audits in accordance with *Government Auditing Standards*, issued by the Comptroller General of the United States. Our internal auditors are responsible for preparing an annual audit plan and conducting internal audits under the direction of our Chief Internal Audit Officer ("CIAO"), who reports to the Audit Committee.

The Audit Committee's responsibility is to monitor and oversee these processes. The Audit Committee has certain other responsibilities with respect to the internal audit function, including facilitation of independent, direct communications between the board and our internal auditors. The Audit Committee also reviews the scope of internal audit services required, internal audit findings, and management responses. In addition, the Audit Committee is responsible for the selection, compensation, performance evaluation and independence of the CIAO, who may be removed only with the Audit Committee’s approval. The Audit Committee also approves the incentive compensation plans and awards for internal audit employees; the charter for the internal audit department; and the staffing, budget, and risk-based internal audit plan.

Prior to their issuance, the Audit Committee reviews and discusses the quarterly and annual earnings releases, financial statements (including the presentation of any non-GAAP financial information) and additional disclosures under "Management's Discussion and Analysis of Financial Condition and Results of Operations" with management, our internal auditors and PwC. The Audit Committee also oversees our internal auditors' review of our policies and practices with respect to financial risk assessment, and our processes and practices with respect to enterprise risk assessment and management (although the board's Risk Oversight Committee has primary responsibility for the review of our risk assessment and risk management matters). The Audit Committee discussed with PwC matters required to be discussed by Auditing Standard No. 1301 Communications with Audit Committee, as amended, and Rule 2-07 (Communication with Audit Committees) of Regulation S-X. The Audit Committee met with PwC and with our internal auditors, in each case with and without other members of management present, to discuss the results of their respective audits; their views regarding the appropriateness of management's estimates, judgments, selection of accounting policies, and systems of internal controls; and the overall quality and integrity of our financial reporting. Management represented to the Audit Committee that our financial statements were prepared in accordance with accounting principles generally accepted in the United States of America.

Based on its discussions with our management, our internal auditors and PwC, as well as its review of the representations of management and PwC's report, the Audit Committee recommended to the board, and the board has approved, the inclusion of the audited financial statements in our Annual Report on Form 10-K for the year ended December 31, 2019, for filing with the SEC.

The Audit Committee is comprised of the following directors as of March 10, 2020:

Robert D. Long, Chair, independent director
Ryan M. Warner, Vice Chair
Robert M. Fisher
Karen F. Gregerson
Jeffrey G. Jackson
Larry W. Myers
Christine Coady Narayanan, independent director
Dan L. Moore, Ex-Officio Voting Member

Audit Committee Financial Experts.Our board of directors has determined that Audit Committee Chair Robert D. Long, Audit Committee Vice Chair Ryan M. Warner, and Audit Committee members Robert M. Fisher, Karen F. Gregerson, Jeffrey G. Jackson and Larry W. Myers are Audit Committee Financial Experts under SEC rules. For information concerning these directors' qualifications to be so designated, please refer to their respective biographical summaries above in this Item 10.

Executive Officers

Our Executive Officers during the last completed fiscal year, as determined under SEC rules, are listed in the table below. Each officer serves a term of office of one calendar year or until the election and qualification of his or her successor, provided, however, that pursuant to the Bank Act, our board of directors may dismiss any officer at any time. Except as indicated, each officer has been employed in the principal occupation listed below for at least five years.

Name	Age	Position
Cindy L. Konich [(1)]	63	President - Chief Executive Officer ("CEO")
William D. Miller [(2)]	62	Executive Vice President - Chief Risk and Compliance Officer ("CRCO")
Deron J. Streitenberger [(3)]	52	Executive Vice President - Chief Business Operations Officer ("CBOO")
Gregory L. Teare [(4)]	66	Executive Vice President - Chief Financial Officer ("CFO")
Chad A. Brandt [(5)]	55	Senior Vice President - Treasurer
Christopher Dawson [(6)]	43	Senior Vice President - Chief Information Officer
Jonathan W. Griffin [(7)]	49	Senior Vice President - Chief Business Development Officer
Kania D. Lottie [(8)]	38	Senior Vice President - Chief Human Resources and Diversity & Inclusion Officer (Ethics Officer)
Brendan McGrath [(9)]	42	Senior Vice President - Chief Analytics Officer
Gregory J. McKee [(10)]	46	Senior Vice President - Chief Internal Audit Officer
K. Lowell Short, Jr. [(11)]	63	Senior Vice President - Chief Accounting Officer ("CAO")
Mary Beth Wott [(12)]	55	Senior Vice President - Community Investment Officer

(1) Ms. Konich was appointed by our board of directors to serve as President - CEO in July 2013. Prior to that appointment, she served as Acting Co-President - CEO for two periods during 2013. Previously, Ms. Konich was promoted to Executive Vice President - Chief Operating Officer - Chief Financial Officer in July 2010 after having served as Senior Vice President - Chief Financial Officer beginning in September 2007. Ms. Konich holds an MBA and is a CPA.

(2) Mr. Miller was promoted to Executive Vice President - Chief Risk Officer effective January 2017, after having been appointed by our board of directors as Senior Vice President - Chief Risk Officer in February 2014. In November 2018, Mr. Miller was appointed by the board to the additional position of Chief Compliance Officer. Mr. Miller holds an MBA.

(3) Mr. Streitenberger was promoted to Executive Vice President - CBOO effective January 2019, after having been appointed by our board of directors as Senior Vice President - CBOO in November 2015. Prior to that, he was appointed as Senior Vice President - Chief Information / MPP Operations Officer, in February 2015. He was previously promoted to Senior Vice President - Chief Information Officer effective January 2015. Mr. Streitenberger holds an MBA.

(4) Mr. Teare was promoted to Executive Vice President - CFO effective January 2017, after having been appointed by our board of directors as Senior Vice President - CFO in February 2015. He was previously appointed by our board of directors as Senior Vice President - Chief Banking Officer in September 2008. Mr. Teare holds an MBA.

(5) Mr. Brandt was appointed by our board of directors as Senior Vice President - Treasurer effective January 2016. Previously, Mr. Brandt was Vice President and Senior Manager - Liquidity and Funding at BMO Harris Bank from July 2015 to December 2015. Prior to that, he was Managing Principal of North Center Management Partners LLC from December 2014 to July 2015. Mr. Brandt holds an MBA.

(6) Mr. Dawson was promoted to Senior Vice President - Chief Information Officer effective January 2019, after having been appointed by our board of directors as First Vice President - Chief Technology Officer in November 2015. Prior to that, he was appointed by our board of directors as Vice President - Director of Technology Services in March 2014. Mr. Dawson holds an MBA.

(7) Mr. Griffin was appointed Senior Vice President - Chief Business Development Officer in June 2018, after serving as Senior Vice President - Chief Marketing Officer from 2017 to 2018. Mr. Griffin was promoted by our board of directors to Senior Vice President - Chief Credit and Marketing Officer effective January 2015. Mr. Griffin holds an MBA and is a CFA.

(8) Ms. Lottie was promoted to Senior Vice President - Chief Human Resources and Diversity & Inclusion Officer in July 2019 after having been appointed by our board of directors as First Vice President - Director of Human Resources and Diversity & Inclusion in November 2018. Prior to that, she was appointed First Vice President - Director of Human Resources effective January 2018. Ms. Lottie was appointed Vice President - Director of Human Resources effective January 2016 after having served as Vice President - Director of Human Resources and Administration & Corporate Secretary since May 2015 and as Vice President - Associate General Counsel & Corporate Secretary since January

2014. Ms. Lottie also serves as one of the Bank's Ethics Officers. She holds an MBA and a JD and is licensed to practice law in the State of Indiana. She also holds SPHR and SHRM-SCP certifications.

(9) Mr. McGrath was promoted to Senior Vice President - Chief Analytics Officer effective January 2019, after having been appointed by our board of directors as First Vice President - Director of Credit Risk Analysis in January 2017. Prior to that, Mr. McGrath was appointed by our board of directors as Vice President - Director of Credit Risk Analysis in May 2014. Mr. McGrath is a CPA and a CFA.

(10) Mr. McKee was promoted to Senior Vice President - Chief Internal Audit Officer effective January 2015. Mr. McKee holds an MBA and is a CPA.

(11) Mr. Short was appointed by our board of directors as Senior Vice President - CAO in August 2009. Mr. Short holds an MBA and is a CPA.

(12) Ms. Wott was promoted to Senior Vice President - Community Investment Officer effective July 2019, after having been appointed by our board of directors as First Vice President - Community Investment Officer in July 2013. Ms. Wott holds an MBA.

Code of Conduct

We have a Code of Conduct that is applicable to all directors, officers and employees of our Bank, including our principal executive officer, our principal financial officer, our principal accounting officer, and the members of our Affordable Housing Advisory Council. The Code of Conduct is available on our website by scrolling to the bottom of any web page on www.fhlbi.com and then selecting "Corporate Governance" in the navigation menu. Interested persons may also request a copy by contacting us, Attention: Corporate Secretary, FHLBank of Indianapolis, 8250 Woodfield Crossing Boulevard, Indianapolis, IN 46240.

Section 16(a) Beneficial Ownership Reporting Compliance

Not Applicable.

ITEM 11. EXECUTIVE COMPENSATION

We use acronyms and terms throughout this Item that are defined herein or in the *Defined Terms*.

Compensation Committee Interlocks and Insider Participation

The Human Resources Committee ("HR Committee") is a standing committee that serves as the Compensation Committee of the board of directors and is comprised solely of directors. No officers or employees of our Bank serve on the HR Committee. Further, no director serving on the HR Committee has ever been an officer of our Bank or had any other relationship that would be disclosable under Item 404 of SEC Regulation S-K.

Compensation Committee Report

The HR Committee has reviewed and discussed with Bank management the "Compensation Discussion and Analysis" that follows and, based on such review and discussions, has by resolution recommended to our board of directors that the Compensation Discussion and Analysis be included in our Form 10-K for 2019.

As of the dates indicated, the HR Committee was comprised of the following directors:

Name	December 31, 2019	March 10, 2020
Christine Coady Narayanan	Chair	Chair
Michael J. Hannigan, Jr.	Vice Chair	Member
Ronald Brown		Member
Charlotte C. Decker	Member	Member
Robert M. Fisher	Member	Vice Chair
Robert D. Long	Member	Member
Ryan M. Warner	Member	
Dan L. Moore	Ex-Officio	Ex-Officio

Compensation Discussion and Analysis

Overview. To provide perspective on our compensation programs and practices for our Named Executive Officers ("NEOs"), we have included certain information in this Compensation Discussion and Analysis relating to Executive Officers and employees other than the NEOs. Our NEOs for 2019 consisted of (i) individuals who served as our principal executive officer ("PEO") during such year, (ii) individuals who served as our principal financial officer ("PFO") during such year, and (iii) the three most highly compensated officers (other than the officers who served as PEO or PFO) who were serving as Executive Officers (as defined in SEC rules) at the end of 2019. The following persons were our NEOs for 2019, the period covered by this Compensation Discussion and Analysis.

NEO	Title
Cindy L. Konich	President - Chief Executive Officer ("CEO") - PEO
Gregory L. Teare	Executive Vice President - Chief Financial Officer ("CFO") - PFO
William D. Miller	Executive Vice President - Chief Risk and Compliance Officer ("CRCO")
Deron J. Streitenberger	Executive Vice President - Chief Business Operations Officer ("CBOO")
K. Lowell Short, Jr.	Senior Vice President - Chief Accounting Officer ("CAO")

Our executive compensation program is overseen by the Executive/Governance Committee (with respect to the President - CEO's performance and compensation) and the HR Committee (with respect to the other NEOs' compensation), and ultimately by the entire board of directors. The HR Committee meets at scheduled times throughout the year (six times in 2019) and reports its recommendations to the board. The HR Committee has the authority to obtain advice and assistance from outside legal counsel, compensation consultants, and other advisors as the HR Committee deems necessary, with all fees and expenses paid by our Bank. The Executive/Governance Committee assists the board in the governance of our Bank, including nominations of the Chair and Vice Chair of the board and its committee structures and assignments, and in overseeing the affairs of our Bank during intervals between regularly scheduled meetings of the board, as provided in our bylaws. The Executive/Governance Committee meets as needed throughout the year (five times in 2019) and reports its recommendations to the board.

Regulation of Executive Compensation.

Bank Act and Finance Agency Executive Compensation Rule. Because we are a GSE, our executive compensation programs are subject to regulation by the Finance Agency. The Safety and Soundness Act and the Finance Agency's rule on executive compensation ("Executive Compensation Rule") provide the Finance Agency Director with the authority to prevent the FHLBanks from paying compensation to executive officers that is not "reasonable and comparable" to compensation for employment paid at institutions of similar size and function for similar duties and responsibilities. While the Safety and Soundness Act and the Executive Compensation Rule prohibit the Director from setting specific levels or ranges of compensation for FHLBank executive officers, the Executive Compensation Rule does authorize the Director to identify relevant factors for determining whether executive compensation is reasonable and comparable. Such factors include but are not limited to: (i) duties and responsibilities of the position; (ii) compensation factors that indicate added or diminished risks, constraints, or aids in carrying out the responsibilities of the position; and (iii) performance of the executive officer's institution, the specific executive officer, or one of the institution's significant components with respect to achievement of goals, consistency with supervisory guidance and internal rules of the entity, and compliance with applicable law and regulation. We have incorporated these factors into our development, implementation, and review of compensation policies and practices for executive officers, as described below.

Pursuant to the Executive Compensation Rule, the Finance Agency requires the FHLBanks to provide information to the Finance Agency for review and non-objection concerning all compensation actions relating to the respective FHLBanks' executive officers. This information, including studies of comparable compensation, must be provided to the Finance Agency at least 30 days in advance of any planned FHLBank payment of compensation to executive officers. In addition, the FHLBanks are required to provide at least 60 days' advance notice to the Finance Agency of any arrangement that provides for incentive awards to executive officers. Under the supervision of our board of directors, we provide this information to the Finance Agency as required.

Finance Agency Advisory Bulletin 2009-AB-02. Finance Agency Advisory Bulletin 2009-AB-02 sets forth certain principles for executive compensation practices to which each FHLBank and the Office of Finance should adhere in setting executive compensation. These principles consist of the following:

- executive compensation must be reasonable and comparable to that offered to executives in similar positions at other comparable financial institutions;
- executive incentive compensation should be consistent with sound risk management and preservation of the par value of the FHLBank's capital stock;
- a significant percentage of an executive's incentive-based compensation should be tied to longer-term performance and outcome indicators;
- a significant percentage of an executive's incentive-based compensation should be deferred and made contingent upon performance over several years; and
- the FHLBank's board of directors should promote accountability and transparency in the process of setting compensation.

In evaluating an FHLBank's compensation, the Finance Agency Director will consider the extent to which an executive's compensation is consistent with these advisory bulletin principles. We have incorporated these principles into our development, implementation, and review of compensation policies and practices for executive officers, as described below.

Finance Agency Rule on Golden Parachute Payments. The Finance Agency's rule on golden parachute payments ("Golden Parachute Rule") sets forth the standards that the Finance Agency will take into consideration when limiting or prohibiting golden parachute payments by an FHLBank, the Office of Finance, Fannie Mae or Freddie Mac. The Golden Parachute Rule generally prohibits golden parachute payments except in limited circumstances with Finance Agency approval. Golden parachute payments may include compensation paid to a director, officer or employee following the termination of such person's employment by a regulated entity that is insolvent, is in conservatorship or receivership, is required by the Finance Agency Director to improve its financial condition, or has been assigned a composite examination rating of 4 or 5 by the Finance Agency. Golden parachute payments generally do not include payments made pursuant to a qualified pension or retirement plan, an employee welfare benefit plan, a bona fide deferred compensation plan, a nondiscriminatory severance pay plan, or payments made by reason of the death or disability of the individual. The golden parachute provisions in our benefit plans comply with the Golden Parachute Rule.

Compensation Philosophy and Objectives. In 2019, our board of directors adopted a resolution updating our statement of compensation philosophy. Pursuant to the resolution, our compensation philosophy is to provide a market-competitive compensation and benefits package that will enable us to effectively recruit, promote, retain and motivate highly qualified employees, management and leadership talent for the benefit of our Bank, its members, and other stakeholders. We desire to be competitive and forward-thinking while maintaining a prudent risk management culture. Thus, our compensation program encourages operational excellence, superior member service, responsible growth and prudent risk-taking while delivering a competitive pay package.

Specifically, our compensation program is designed to reward:

- attainment of performance goals;
- implementation of short- and long-term business strategies;
- accomplishment of our public policy mission;
- effective and appropriate management of financial, operational, reputational, regulatory, and human resources risks;
- growth and enhancement of senior management leadership and functional competencies; and
- accomplishment of goals to maintain an efficient, cooperative system of FHLBanks.

The board of directors regularly reviews these goals and the compensation alternatives available and may make changes in the program from time to time to better achieve these goals or to comply with Finance Agency directives. As a cooperative, we are not able to offer equity-based compensation, and only member institutions (or their legal successors) may own our stock. Without equity incentives to attract, reward and retain NEOs and senior management, we provide alternative compensation and benefits such as cash incentive opportunities, pension (with respect to three of the NEOs identified in this Report) and other retirement benefits (as to all NEOs). This approach generally will lead to a mix of compensation for NEOs that emphasizes base salary, provides meaningful incentive opportunities, and creates a competitive total compensation opportunity relative to the market.

Role of the Executive/Governance and HR Committees in Setting Executive Compensation. The Executive/Governance and HR Committees intend that our executive compensation program be aligned with our Bank-wide short-term and long-term business objectives and focus executives' efforts on fulfilling these objectives. The Executive/Governance Committee reviews the President - CEO's performance and researches and recommends the President - CEO's salary to the board of directors. The President - CEO determines the salaries of the other NEOs, generally after consulting with the HR Committee, as discussed below. The HR Committee recommends, for approval by the board, the percentage of salary increases that will apply to merit, promotional and equity increases for each year's budget. The benefit plans that will be offered, and any material changes to those plans from time to time, are approved by the board after review and recommendation by the HR Committee. The HR Committee also recommends the goals, payouts and qualifications for both the annual incentive awards and the deferred incentive awards for the board's review and approval.

Our Executive/Governance and HR Committees operate under written charters adopted by the board of directors and most recently reviewed by the board as of March 22, 2019 and January 24, 2020, respectively. Those charters are available on our website by scrolling to the bottom of any web page on www.fhlbi.com and then selecting "Corporate Governance" in the navigation menu.

Role of Compensation Consultants in Setting Executive Compensation. For each of the last nine years, McLagan Partners, Inc. ("McLagan"), an Aon plc company, was engaged by Bank management to work with the HR Committee to evaluate and update our salary and benefit benchmarks for certain positions, including the NEOs' positions, in our Bank. Many other FHLBanks engage McLagan for similar compensation-related services.

The salary and benefit benchmarks we use to establish reasonable and competitive compensation for our employees are the competitor groups identified by McLagan. The competitor groups are comprised of selected firms that participated in McLagan's Financial Industry Salary Survey. The firms included in the competitor groups can change year-to-year, based on changes in the composition of the McLagan survey participants, changes in financial metrics of firms that participated in the survey for that year, and McLagan's analysis.

For 2019, McLagan identified three peer groups, which are collectively referred to as "Competitor Groups." The first peer group is comprised of the 10 other FHLBanks. The benchmark positions used from the other FHLBanks are comparable to the positions at our Bank (*e.g.*, CEO to CEO).

The second peer group consists of a number of large regional commercial banks and other financial institutions, as well as the Federal Reserve Banks. There are 110 institutions in the second peer group. The benchmark positions used from the other regional/commercial banks include the divisional/functional heads, rather than the overall head of the bank, to account for the difference in scale of activities at a large regional bank compared to an FHLBank (*e.g.*, Head of Corporate Banking used in the benchmark, rather than a large regional bank's CEO, as the appropriate comparison to the FHLBank's CEO). While the benchmark jobs from the regional/commercial banks capture the functional responsibility of FHLBank positions, they do not capture the executive responsibility that exists at the FHLBank.

AIB	Federal Reserve Bank of Atlanta	Nordea Bank
Ally Financial Inc.	Federal Reserve Bank of Boston	Norinchukin Bank, New York Branch
Associated Bank	Federal Reserve Bank of Cleveland	Northern Trust Corporation
Australia & New Zealand Banking Group	Federal Reserve Bank of Kansas City	PacWest Bancorp
Banco Bilbao Vizcaya Argentaria	Federal Reserve Bank of Minneapolis	People's United Financial, Inc.
Banc Itau Unibanco	Federal Reserve Bank of New York	PNC Bank
Bank Hapoalim	Federal Reserve Bank of Richmond	Popular Community Bank
Bank of America Merrill Lynch	Federal Reserve Bank of San Francisco	Rabobank
Bank of New York Mellon	Federal Reserve Bank of St Louis	Regions Financial Corporation
Bank of Nova Scotia	Fifth Third Bank	Royal Bank of Canada
Bank of the West	First Citizens Bank	Royal Bank of Scotland Group
Bayerische Landesbank	First Republic Bank	Santander Bank, NA
BBVA Compass	First Tennessee Bank/First Horizon	Signature Bank - NY
BMO Financial Group	FNB Omaha	Societe Generale
BNP Paribas	Freddie Mac	Standard Chartered Bank
BOK Financial Corporation	GE Capital	State Street Corporation
Branch Banking & Trust Co.	Hancock Bank	Sterling National Bank
Brown Brothers Harriman	HSBC	Sumitomo Mitsui Banking Corporation
Capital One	Huntington Bancshares, Inc.	Sumitomo Mitsui Trust Bank
Charles Schwab & Co.	ICBC Financial Services	Sun Trust Banks
China Merchants Bank	ING	SVB Financial Group
CIBC World Markets	Intesa Sanpaolo	Synchrony Financial
CIT Group	Investors Bancorp, Inc	Synovus
Citigroup	JP Morgan Chase	TD Ameritrade
Citizens Financial Group	KBC Bank	TD Securities
City National Bank	KeyCorp	Texas Capital Bank
Comerica	Landesbank Baden-Wuerttemberg	The PrivateBank
Commerce Bank	Lloyds Banking Group	U.S. Bancorp
Commerzbank	M&T Bank Corporation	UMB Financial Corporation
Commonwealth Bank of Australia	Macquarie Bank	Umpqua Bank
Crédit Agricole CIB	MB Financial Bank	UniCredit Bank AG
Credit Industriel et Commercial – N.Y.	MUFG Bank, Ltd.	Valley National Bank
Cullen Frost Bankers, Inc.	MUFG Securities	Webster Bank
DBS Bank	National Australia Bank	Wells Fargo Bank
DZ Bank	Natixis	Westpac Banking Corporation
East West Bancorp	New York Community Bank	Zions Bancorporation
Fannie Mae	Nord/LB	

The third peer group consists of 23 publicly-traded regional/commercial banks with assets of $10 billion to $20 billion. The benchmark jobs used from this peer group include the NEOs reported in their proxy statements, which capture the executive responsibilities encompassed in the positions.

Banc of California Inc.	FCB Financial Holdings Inc.	Old National Bancorp
BancorpSouth Bank	First Interstate BancSystem	Simmons First National Corp.
Bank of Hawaii Corp.	First Midwest Bancorp Inc.	South State Corporation
Berkshire Hills Bancorp Inc.	Great Western Bancorp Inc.	Trustmark Corp.
Cathay General Bancorp	Hilltop Holdings Inc.	United Bankshares, Inc.
Chemical Financial Corp	Home BancShares Inc.	United Community Banks Inc.
Columbia Banking System Inc.	Hope Bancorp, Inc.	Washington Federal Inc.
Community Bank System Inc.	International Bancshares Corp.	

The benchmark jobs selected by McLagan from the Competitor Groups collectively capture the functional and executive responsibilities of our NEO positions, represent comparable market opportunities and represent realistic employment opportunities. We establish threshold, target and maximum base and anticipated incentive pay levels based on this competitor group analysis, while actual pay levels are based on our financial performance, stability, prudent risk-taking and conservative operating philosophies, and our compensation philosophy, as discussed above.

Role of the Named Executive Officers in the Compensation Process. The NEOs may assist the HR Committee and the board of directors by providing data and background information to any compensation consultants engaged by management, the board or the HR Committee. The Human Resources department assists the HR Committee and compensation consultants by gathering research on the Bank's hiring and turnover statistics, compensation trends, peer groups, cost of living, and other market data requested by the President - CEO, the HR Committee, the Finance/Budget Committee, the Audit Committee, the Executive/Governance Committee, or the board. Senior management (including the NEOs) prepares the strategic plan financial forecasts, which are then considered by the Finance/Budget Committee and by the board when establishing the goals and anticipated payout terms for the incentive compensation plan. The CRCO oversees the Enterprise Risk Management ("ERM") department's review, from a risk perspective, of the incentive compensation plan's risk-related performance goals and target achievement levels.

Compensation Risk. The HR Committee and the Executive/Governance Committee review our policies and practices of compensating our employees, including non-executive officers, and have determined that none of these policies or practices result in any risk that is reasonably likely to have a material adverse effect on our Bank. Further, based on such reviews, the HR Committee and the Executive/Governance Committee believe that our plans and programs contain features that operate to mitigate risk and reduce the likelihood of employees taking excessive risks relating to the compensation-related aspects of their duties. In addition, the material plans and programs operate within a strong governance, review and regulatory structure that serves and supports risk mitigation.

Elements of Compensation Used to Achieve Compensation Philosophy and Objectives. The total compensation mix for NEOs in 2019 consisted of:

(1) base salaries;
(2) annual and deferred incentive opportunities;
(3) retirement benefits;
(4) perquisites and other benefits; and
(5) potential payments upon termination or change in control.

The board of directors has structured the compensation programs to comply with Internal Revenue Code ("IRC") Section 409A. If an executive is entitled to nonqualified deferred compensation benefits that are subject to IRC Section 409A, and such benefits do not comply with IRC Section 409A, then the benefits are taxable in the first year they are not subject to a substantial risk of forfeiture. In such case, the executive is subject to payment of regular federal income tax, interest and an additional federal income tax of 20% of the benefit includable in income. The Key Employee Severance Agreement ("KESA") between our Bank and our President-CEO contains provisions that "gross-up" certain benefits paid thereunder in the event she should become liable for an excise tax on such benefits. Other elements of our NEOs' compensation may be adjusted to reflect the tax effects of such compensation.

Base Salaries. Unless otherwise described, the term "base salary" as used in this Item 11 refers to an individual's annual salary, before considering incentive compensation, deferred compensation, perquisites, taxes, or any other adjustments that may be elected or required. We recruit and desire to retain senior management from national markets. Consequently, the cost of living in Indiana is not a direct factor in determining base salary. Merit increases to base salaries are used, in part, to keep our NEO salary levels competitive with those in the Competitor Groups.

The President - CEO's base salary is established annually by the board after review and recommendation by the Executive/ Governance Committee. Our board has concluded that the level of scrutiny to which the base salary determination for the President - CEO is subjected is appropriate in light of the nature of the position and the extent to which she is responsible for the overall performance of our Bank. In setting the President - CEO's base salary, the Executive/Governance Committee and the board have discretion to consider a wide range of factors, including the overall performance of our Bank, the President - CEO's individual performance, her tenure, and the amount of her base salary relative to the base salaries of executives in similar positions in companies in our Competitor Groups. Although a policy or a specific formula has not been developed for such purpose, the Executive/Governance Committee and the board also consider the amount and relative percentage of the President - CEO's total compensation that is derived from her base salary. In light of the variety of factors that are considered, the Executive/Governance Committee and the board have not attempted to rank or otherwise assign relative weights to the factors they consider. Rather, the Executive/Governance Committee and the board consider all the factors as a whole, including data and recommendations from McLagan.

After an advisory consultation with the HR Committee, the base salaries for our other NEOs are set or approved annually by the President - CEO, who has discretion to consider a wide range of factors including competitive benchmark data from McLagan, each NEO's qualifications, responsibilities, assessed performance contribution, tenure, position held, amount of base salary relative to similarly-positioned executives in our Competitor Groups and our overall salary budget. Although a policy or a specific formula has not been developed for such purpose, the President - CEO also considers the amounts and relative percentages of the NEOs' total compensation that are derived from their base salaries, including data and recommendations from McLagan.

In September 2018, the HR Committee recommended and the board of directors approved for the 2019 salary budget (i) merit and market-based increases averaging 3.0% of annual base salaries for all employees and (ii) promotional and equity adjustments averaging an additional 1.5% of annual base salaries. These approved amounts were incorporated into our 2019 operating budget as recommended by our Finance/Budget Committee and approved by our board of directors in November 2018. NEO base salary increases above 3% for 2019 were not taken from the pool of merit and market-based increases approved by the board for 2019.

The NEOs' base salaries for 2019 were effective December 22, 2018 and are presented in the Summary Compensation Table.

Annual and Deferred Incentive Opportunities. Generally, as an executive's level of responsibility increases, a greater percentage of total compensation is based on our overall performance. Our incentive plan has a measurement framework that rewards achievement of specific goals consistent with our mission. As discussed below, our incentive plan is performance-based and represents a reasonable risk-return balance for our cooperative members both as users of our products and as shareholders.

The board of directors adopted an incentive compensation plan effective January 1, 2012 ("Incentive Plan"). The Incentive Plan provides cash award opportunities based on achievement of performance goals. The purpose of the Incentive Plan is to attract, retain and motivate employees and to focus their efforts on a reasonable level of profitability while maintaining safety and soundness. Employees in the Internal Audit department are excluded from the Incentive Plan but are eligible to participate in a separate incentive compensation plan established by the Audit Committee. With certain exceptions, any employee hired before October 1 of a calendar year becomes a "Participant" in the Incentive Plan for that calendar year. A "Level I Participant" is the Bank's President - CEO, an EVP or a SVP, while a "Level II Participant" is any other participating employee. All NEOs identified as of each December 31 are included among the eligible Level I Participants and must execute an agreement with us containing certain non-solicitation and non-disclosure provisions.

Performance goals and the relative weight to be accorded to each goal are established annually by the HR Committee and approved by the board of directors for each calendar-year period ("Performance Period") and three-calendar-year period ("Deferral Performance Period"). The board also approves the "Threshold," "Target" and "Maximum" achievement levels for each performance goal to determine how much of an award may be earned. The achievement of performance goals determines the value of awards for Level I Participants (including the NEOs), which may be Annual Awards (relating to achievement of performance goals over a Performance Period) and Deferred Awards (relating to achievement of performance goals over a Deferral Performance Period), and for other Level II Participants (Annual Awards only). The board may adjust the performance goals to ensure the purposes of the Incentive Plan are served, but made no such adjustments during 2017, 2018 or 2019.
The board establishes a maximum award for eligible Participants before the beginning of each Performance Period. Each award equals a percentage of the Participant's annual compensation, which is generally defined as the Participant's annual earned base salary or wages for hours worked.

With respect to the NEOs' Annual Awards and Deferred Awards, 50% of an award to a Level I Participant will become earned and vested on the last day of the Performance Period (Annual Award), subject to the achievement of specified Bank performance goals over such period, the attainment of a specific minimum individual performance rating for such period, and active employment on the last day of such period (subject to certain limited exceptions relating to the circumstances of employment termination before the end of the Performance Period). The remaining 50% will become earned and vested on the last day of the Deferral Performance Period (Deferred Award), subject to the attainment of a specific minimum individual performance rating for each year of such period, and active employment on the last day of such period (subject to certain limited exceptions relating to the circumstances of employment termination before the end of the Deferral Performance Period), and further subject to the Bank's achievement during the Deferral Performance Period of additional performance goals relating to our profitability, retained earnings, and prudential management objectives. Depending on our performance during the Deferral Performance Period, the final award (i.e., the amount of the earned and vested Deferred Award ultimately paid to the Participant) will be worth 75% at Threshold, 100% at Target or 125% at Maximum of the original amount of the Deferred Award. The level of achievement of those additional goals could thereby result in an increase or decrease to the Deferred Awards.

2019 Annual Award (Paid in 2020). The table below presents the incentive opportunity, earned, and deferred percentages of earned base salary for Level I Participants for the 2019 Performance Period.

	Total Incentive Opportunity as % of Compensation			**Total Incentive Earned and Vested at Year-End**			**Total Incentive Deferred for 3 Years**		
Position	**Threshold**	**Target**	**Maximum**	**Threshold**	**Target**	**Maximum**	**Threshold**	**Target**	**Maximum**
CEO	50.0%	80.0%	100.0%	25.0%	40.0%	50.0%	25.0%	40.0%	50.0%
EVP	40.0%	60.0%	80.0%	20.0%	30.0%	40.0%	20.0%	30.0%	40.0%
SVP	35.0%	52.5%	70.0%	17.5%	26.25%	35.0%	17.5%	26.25%	35.0%

On January 25, 2019, the board of directors established Annual Award Performance Goals for 2019 for Level I Participants relating to specific mission goals for profitability, member activity, ERM, minority and women inclusion, and compliance risk management. The weights and specific achievement levels for each 2019 mission goal are presented below.

	Weighted Value		Performance Levels					Weighted Average Achievement	
2019 Mission Goals	**Bank [1]**	**ERM**	**Threshold**	**Target**	**Maximum**	**Actual Result**	**Achievement Percentage**	**Bank [1]**	**ERM**
Profitability [2]	20%	15%	469 bps	541 bps	641 bps	below threshold	0%	0%	0%
Member Activity									
A. Member Advances Growth [3]	20%	10%	0%	2.6%	4%	maximum	100%	20%	10%
B. Member Education and Outreach [4]	15%	15%	15 events	20 events	25 events	maximum	100%	15%	15%
C. PFI Concentration	5%	5%	Top 5 MPP sellers will account for 65% or less of total purchases	Top 5 MPP sellers will account for 60% or less of total purchases	Top 5 MPP sellers will account for 57.5% or less of total purchases	maximum	100%	5%	5%
D. CIP Advances Originated [5]	10%	5%	$50MM	$100MM	$200MM	maximum	100%	10%	5%
ERM Objectives [6]	10%	30%	Achieve One ERM Objective	Achieve Two ERM Objectives	Achieve Three ERM Objectives	maximum	100%	10%	30%
Minority and Women Inclusion									
A. Presence (Inclusion Goal) Establishment of a bankwide Employee Resource Group (ERG)	5%	5%	Framework to create an ERG	Identification of an ERG to be established within the Bank	Launch of an ERG	maximum	100%	5%	5%
B. Performance (Diversity Goal) Portion of 2019 Vendor Spend with Qualifying Vendors [7]	5%	5%	15% Diverse Spend	17% Diverse Spend	19% Diverse Spend	maximum	100%	5%	5%
Enhancement of Compliance Risk Management Function [8]	10%	10%	After the end of the Third Quarter and on or before the end of the Fourth Quarter	After the end of the Second Quarter and on or before the end of the Third Quarter	On or before the end of the Second Quarter	maximum	100%	10%	10%
Total	100%	100%						80%	85%

(1) For all Level I Participants, excluding those in ERM.

(2) For purposes of this goal, profitability is defined as the Bank's profitability rate in excess of the Bank's cost of funds rate. Profitability is the Bank's adjusted net income reduced by the portion of net income to be added to restricted retained earnings under the JCE Agreement dated August 5, 2011, as amended, by and among the FHLBanks and increased by the Bank's accruals for incentive compensation net of the AHP assessment. Adjusted net income represents GAAP Net Income adjusted: (i) for the net impact of certain current and prior period advance prepayments and debt extinguishments, net of the AHP assessment, (ii) to exclude mark-to-market adjustments on derivatives and certain other effects from derivatives and hedging activities, net of the AHP assessment, and (iii) to exclude the effects from interest expense on MRCS. The Bank's profitability rate is profitability, as defined above, as a percentage of average total regulatory capital stock (B1 weighted at 100% and B2 weighted at 80% to reflect the relative weights of the Bank's dividend). Assumes no material change in investment authority under the Finance Agency's regulation, policy, directive, guidance, or law.

(3) Member advances growth is calculated as the growth in the average daily balance of advances outstanding to members at par. Average daily balances are used instead of point-in-time balances to eliminate point-in-time activity that may occur and to reward for the benefit of the income earned on advances balances while outstanding. Advances to members that become non-members during 2019, Flagstar Bank, FSB and all captive insurance company members will be excluded from the calculation. Goal assumes no material change in membership eligibility under the Finance Agency's regulation, policy, directive, guidance or law.

(4) Member education and outreach events are symposia, conferences, workshops, webinars (with a maximum of 2 webinars per agenda topic toward achievement of this goal), educational events, presentations at trade conferences, presentation to member Boards of Directors or Committees thereof, and other events educating Bank members about advances, MPP, the Bank's community investment products and activities, industry trends, and other products and services. To qualify, events must target more than 1 member, with the exception of presentations to individual member Boards or committees thereof. Status and reporting on this Goal and its attainment will be provided in writing by the officer responsible for the event, and will be confirmed by the CFO or by the CBOO.

(5) CIP Advances are newly-originated Community Investment Cash Advances, including CIP and other qualifying Advances and CIP qualified letters of credit, provided in support of targeted projects as defined in 12 C.F.R. Part 1291 and the Bank Act.

(6) The Board has established 3 ERM Objectives for 2019:
<u>ERM Objective 1 – Systemic Risk Analysis</u> – The Systemic Risk Analysis is comprised of two parts. In part 1, ERM is to prepare a comprehensive retrospective analysis of the 2007-2009 Financial Crisis and report the results of the analysis to the Board. In part 2, ERM is to prepare a prospective analysis of the "Systemic Risk Exposure" of the FHLBank System.
<u>ERM Objective 2 – Managing 21st Century Political Risk Analysis</u> – Prepare an analysis of the Bank's political risk exposure using a framework adopted from the book entitled Political Risk: How Businesses and Organizations can Anticipate Insecurity. (Authors: Condoleezza Rice, Professor of Economy, Stanford University and Senior Fellow at the Hoover Institution. Amy Zegart, Senior Fellow at Stanford University's Center for International Security and Cooperation and Senior Fellow at the Hoover Institution).
<u>ERM Objective 3 – Mortgage Analysis Board Training</u> – Provide the Board of Directors with a training session on mortgage valuation, funding, hedging, and portfolio management. Training will cover: Nominal Spread, Option Adjusted Spread, and Option Cost; Statistical Distribution of Option Adjusted Spread; Mortgage prepayment S-Curve basics; Non-path dependent options versus path-dependent options; Monte Carlo Simulation of Interest Rates; Portfolio Funding Hedging Optimization; Mortgage Value-at-Risk (400 Scenarios 1979 to Present); Long-term Risk Profile – Value at Risk; Short-term Risk – 12 Month Rolling Interest Income.

(7) "Qualifying Vendors" are vendors that qualify as minorities, women, individuals with disabilities, and minority-, women-, and disabled-owned businesses.

(8) Achievement of this goal requires the Bank to have developed a compliance risk management policy, program, and framework to outline management and staff responsibility which includes the utilization of the Bank's eGRC application, Archer, to monitor compliance risk findings through the Issue Management module. Satisfaction of this goal will be evidenced in one or more reports to the Bank's Risk Committee, utilizing the timelines noted in the Goals table shown above to determine performance results for purposes of this plan.

There is no guaranteed payout under the provisions of the 2019 Incentive Plan. Therefore, the minimum that could be paid out to an NEO was $0. The maximum amounts that could have been earned under the 2019 Incentive Plan for the Annual Award Performance Period are presented below. The actual amounts earned are also presented below and in the Non-Equity Incentive Plan Compensation table.

			Maximum		Actual	
NEO	**Base Salary**	**Annual Award Opportunity**	**Weighted Average Achievement**	**Annual Award**	**Weighted Average Achievement**	**Annual Award**
Cindy L. Konich	$ 931,996	50%	100%	$465,998	80.0%	$ 372,798
Gregory L. Teare	456,430	40%	100%	182,572	80.0%	146,058
William D. Miller	398,840	40%	100%	159,536	85.0%	135,606
Deron J. Streitenberger	378,040	40%	100%	151,216	80.0%	120,973
K. Lowell Short, Jr.	338,572	35%	100%	118,500	80.0%	94,800

2016 Deferred Award (Paid in 2020). Fifty percent of each Level I Participant's 2016 Award ("2016 Deferred Award") was deferred for a three-year period that ended December 31, 2019 ("2017-2019 Deferral Performance Period"). The 2016 Deferred Award became earned and vested on that date, subject to the achievement of specific Bank performance goals over the 2017-2019 Deferral Performance Period and other conditions described below. The performance goals for the 2017-2019 Deferral Performance Period Award are substantially similar to those established for the 2016-2018 Deferral Performance Period. The following table presents the performance goals for the 2016 Deferred Award relating to our profitability, retained earnings and prudential management standards, together with actual results and specific achievement levels for each mission goal.

2017-2019 Mission Goals	Weighted Value (1)	Performance Levels Threshold (2)	Target (2)	Maximum (2)	Actual Result	Achievement %	Weighted Average Achievement
Profitability (3)	35%	25 bps	50 bps	150 bps	maximum	125%	44%
Retained Earnings (4)	35%	3.5%	3.9%	4.3%	maximum	125%	44%
Prudential Standards	30%	Achieve 1 Prudential Standard	(a)	Achieve both Prudential Standards	maximum	125%	37%
Maintain a regulatory capital-to-assets ratio of at least 4.16% as measured on each quarter-end in 2017 through 2019.							
Award to FHLBI members the annual AHP funding requirement in each plan year.							
Total	100%						125%

(1) For Level I Participants.

(2) Deferred Awards are subject to additional performance goals for the Deferral Performance Period. Depending on our performance during the Deferral Performance Period, the Final Award will be worth 75% at Threshold, 100% at Target or 125% at Maximum of the original amount.

(3) For purposes of this goal, profitability is defined as the Bank's profitability rate in excess of the Bank's cost of funds rate. Profitability is the Bank's adjusted net income reduced by the portion of net income to be added to restricted retained earnings under the JCE Agreement and increased by the Bank's accruals for incentive compensation. Adjusted net income represents GAAP net income adjusted: (i) for the net impact of certain current and prior period advance prepayments and debt extinguishments, net of the related AHP assessment, (ii) to exclude mark-to-market adjustments and certain other effects from derivatives and hedging activities, net of the related AHP assessment, and (iii) to exclude the effects from interest expense on MRCS. The Bank's profitability rate, as defined above, as a percentage of average total regulatory capital stock (B1weighted at 100% and B2 weighted at 80% to reflect the relative weights of the Bank's dividend). This goal assumes no material change in investment authority under the Finance Agency's regulation, policy, directive, guidance, or law. Attainment of this goal will be computed using the simple average of annual profitability measures over the three-year period.

(4) Total retained earnings divided by mortgage assets, measured at the end of each month. Calculated each month as total retained earnings divided by the sum of the carrying value of the MBS and AMA assets portfolios. The calculation will be the simple average of 36 month-end calculations.

(a) There is no target level for this goal.

Each NEO received at least the minimum required performance rating for each year of the 2017-2019 Deferral Performance Period and each was employed by the Bank on the last day of that period, thereby satisfying the two remaining conditions applicable to our NEOs for payment of the 2016 Deferred Award.

The following table presents the payouts to the NEOs by applying the achievement levels described above to the performance goals in the 2016 Deferred Award. These payouts are also presented in the Non-Equity Incentive Plan Compensation table.

2016 Deferred Award - 2017-2019 Performance Period

NEO	Total Award for 2016	Percentage Deferred	Deferred Amount	Total Achievement	Deferred Award
Cindy L. Konich	$ 746,170	50%	$ 373,085	125%	$ 466,356
Gregory L. Teare	251,166	50%	125,583	125%	156,979
William D. Miller	217,340	50%	108,670	125%	135,837
Deron J. Streitenberger	212,136	50%	106,068	125%	132,586
K. Lowell Short, Jr.	204,744	50%	102,372	125%	127,966

Other Incentive Plan Provisions. The Incentive Plan provides that a termination of service of a Level I Participant during a Performance Period or Deferral Performance Period may result in the forfeiture of the Participant's award. However, the Incentive Plan recognizes certain exceptions to this general rule if the termination of service is (i) due to the Level I Participant's death, "Disability," or "Retirement"; (ii) for "Good Reason"; or (iii) without "Cause" due to a "Reduction in Force" (in each case as defined in the Incentive Plan). If one of these exceptions applies, a Level I Participant's Annual Award or Deferred Awards generally will be treated as earned and vested, and will be calculated using certain assumptions with respect to our achievement of applicable performance goals for the applicable Performance Period or Deferral Performance Period. Additionally, payment of an award may be accelerated if the Participant dies or becomes "Disabled" while an employee of the Bank, or if the termination is without "Cause" due to a "Reduction in Force".

The Incentive Plan provides that awards may be reduced or forfeited in certain circumstances. If, during a Deferral Performance Period, we realize actual losses or other measures or aspects of performance related to the Performance Period or Deferral Performance Period that would have caused a reduction in the final award for the Performance Period or Deferral Performance Period, the remaining amount of the final award to be paid at the end of the Deferral Performance Period will be reduced to reflect this additional information. In addition, all or a portion of an award may be forfeited at the direction of the board of directors if we have failed to remediate to the satisfaction of the board an unsafe or unsound practice or condition (as identified by the Finance Agency) that is material to our financial operation and within the Level I Participant's area(s) of responsibility. Under such circumstances, the board may also direct the cessation of payments for a vested award. Further, the board may reduce or eliminate an award that is otherwise earned but not yet paid if the board finds that a serious, material safety-soundness problem or a serious, material risk management deficiency exists at our Bank, or in certain other circumstances.

Retirement Benefits. We maintain a comprehensive retirement program for our NEOs. During 2019, certain of our NEOs were eligible to participate in our qualified (DB Plan) and non-qualified (SERP) defined benefit plans and all of our NEOs were eligible to participate in our qualified (DC Plan) and non-qualified (SETP) defined contribution plans. The benefits provided by these plans are components of the total compensation opportunity for NEOs. The board of directors believes these plans serve as valuable retention tools and provide significant tax deferral opportunities and resources for the participants' long-range financial planning. These plans are discussed below.

DB Plan and SERP. All employees who met the eligibility requirements and were hired before February 1, 2010 participate in the DB Plan, a tax-qualified, multiple employer defined benefit pension plan. The plan neither requires nor permits employee contributions. Participants' pension benefits vest upon completion of five years of service. Benefits under the DB Plan are based upon compensation up to the annual compensation limit established by the Internal Revenue Services ("IRS"), which was $280,000 in 2019. In addition, benefits payable to participants in the DB Plan may not exceed a maximum benefit limit established by the IRS, which in 2019 was $225,000, payable as a single life annuity at normal retirement age.

In connection with the DB Plan, the board of directors established a non-qualified plan, the SERP, in 1993 in response to federal legislation that imposes restrictions on the retirement benefits otherwise earned by certain management or highly-compensated employees. The SERP is an extension of our retirement commitment to the NEO participants and certain other employees as highly-compensated employees. The SERP was frozen effective December 31, 2004, and is now referred to as the "Frozen SERP." A separate SERP ("2005 SERP") was established effective January 1, 2005 to conform to IRC Section 409A requirements. The 2005 SERP restores the full pension benefits of NEO participants and certain other employees under the DB Plan that would otherwise be limited by IRS regulations regarding compensation, years of service or benefits payable. The DB Plan and 2005 SERP provide benefits based on a combination of a participant's length of service, age and annual compensation. In determining whether a participant is entitled to a restoration of retirement benefits, the 2005 SERP utilizes the identical benefit formula applicable to the DB Plan. Benefits payable under the 2005 SERP are reduced by (among other things) benefit amounts that would have been payable under the Frozen SERP, calculated as if the participant in the Frozen SERP had terminated employment on December 31, 2004. Frozen SERP and 2005 SERP benefits are funded by a grantor trust we have established as part of the Bank's general assets. The assets of the grantor trust are subject to the claims of our general creditors. Any rights created under the Frozen SERP and 2005 SERP are unsecured contractual rights of the participants against the Bank.

Our board of directors amended the DB Plan, effective for all employees hired on or after July 1, 2008, to provide a reduced benefit. All eligible employees hired on or before June 30, 2008 were grandfathered under the benefit formula and the terms of the DB Plan in effect as of June 30, 2008 ("Grandfathered DB Plan") and are eligible to continue under the Grandfathered DB Plan, subject to future plan amendments made by the board of directors. All eligible employees hired on or after July 1, 2008 but before February 1, 2010 are enrolled in the amended DB Plan ("Amended DB Plan"). As shown below in the Pension Benefits Table, as of December 31, 2019, three NEOs participate in either the Grandfathered DB Plan or the Amended DB Plan and are eligible to participate in the 2005 SERP.

During 2010, our board of directors discontinued eligibility in the Amended DB Plan for new employees. As a result, no employee hired on or after February 1, 2010 is enrolled in that plan, while participants in the Grandfathered DB Plan or Amended DB Plan as of January 31, 2010 continue to be eligible for the Grandfathered DB Plan or Amended DB Plan (and, as applicable, the 2005 SERP) and accrue benefits thereunder until termination of employment.

The following sections describe the differences in the benefits provided under these plans.

Grandfathered DB Plan. The following table shows estimated annual benefits payable upon retirement at age 65 by combining the Grandfathered DB Plan and the 2005 SERP. The estimated annual benefits are calculated in accordance with the formula currently in effect for specified years of service and compensation for individuals participating in both plans, and hired prior to July 1, 2008.

	Annual Benefits Payable at age 65 Based on Years of Benefit Service	
Sample High 3-Year Average Compensation	**35**	**40**
$1,200,000	$ 1,050,000	$ 1,200,000
1,300,000	1,137,500	1,300,000

- Formula: The combined Grandfathered DB Plan and SERP benefit equals 2.5% times years of benefit service times the high three-year average compensation. Benefit service begins one year after employment, and benefits are vested after five years. Benefit payments commencing before age 65 are reduced by applying an early retirement factor based on the participant's age when payments begin. The allowance payable at age 65 would be reduced by 3.0% for each year the employee is under age 65. However, if the sum of age and years of vesting service at termination of employment is at least 70 ("Rule of 70"), the retirement allowance would be reduced by 1.5% for each year the employee is under age 65. Beginning at age 66, retirees are also provided an annual retiree cost of living adjustment of 3.0% per year, which is not reflected in the table.

Amended DB Plan. The following table shows estimated annual benefits payable upon retirement at age 65 by combining the Amended DB Plan and the 2005 SERP. The estimated annual benefits are calculated in accordance with the formula currently in effect for specified years of service and compensation for individuals participating in both plans, hired on or after July 1, 2008 but before February 1, 2010.

Sample High 5-Year Average Compensation	**Annual Benefits Payable at age 65 Based on Years of Benefit Service**		
	10	**15**	**20**
$400,000	$ 60,000	$ 90,000	$ 120,000
500,000	75,000	112,500	150,000
600,000	90,000	135,000	180,000

- Formula: The combined Amended DB Plan and 2005 SERP benefit equals 1.5% times years of benefit service times the high five-year average compensation. Benefit service begins 1 year after employment, and benefits are vested after five years. The allowance payable at age 65 would be reduced according to the actuarial equivalent based on actual age when early retirement commences. Benefit payments commencing before age 65 are reduced by applying an early retirement factor based on the participant's age when payments begin. If a participant satisfied the Rule of 70 at termination of employment, the retirement allowance would be reduced by 3.0% for each year the participant is under age 65.

The following table sets forth a comparison of the Grandfathered DB Plan and the Amended DB Plan.

DB Plan Provisions	**Grandfathered DB Plan (All Employees Hired on or before June 30, 2008)**	**Amended DB Plan (All Employees Hired between July 1, 2008 and January 31, 2010)**
Benefit Increment	2.5%	1.5%
Cost of Living Adjustment	3.0% Per Year Cumulative, Commencing at Age 66	None
Normal Form of Payment	Guaranteed 12 Year Payout	Life Annuity
Early Retirement Reduction for less than Age 65:		
(i) Rule of 70	1.5% Per Year	3.0% Per Year
(ii) Rule of 70 Not Met	3.0% Per Year	Actuarial Equivalent

With respect to all employees hired before February 1, 2010:

- Eligible compensation includes salary (before any employee contributions to tax qualified plans), short-term incentive, bonus (including Annual Awards under the Incentive Plan), and any other compensation that is reflected on the IRS Form W-2 (but not including long-term incentive payments, such as Deferred Awards under the Incentive Plan).
- Retirement benefits from the DB Plan are paid in the form of a lump sum, annuity, or a combination of the two, at the election of the retiree at the time of retirement. Any payments involving a lump sum are subject to spousal consent.
- Retirement benefits from the 2005 SERP may be paid in the form of a lump sum payment, or annual installments up to 20 years, or a combination of lump sum and annual payments.

DC Plan and SETP. All employees, including the NEOs, who have met the eligibility requirements may participate in the DC Plan, a retirement savings plan qualified under IRC Section 401(k). The DC Plan generally provides for an immediate (after the first month of hire) fully vested employer match of 100% on the first 6% of base pay that the participant contributes.

Eligible compensation in the DC Plan is defined as base salary. A participant in the DC Plan may elect to contribute up to 50% of eligible compensation, subject to the following limits. Under IRS regulations, in 2019 an employee could contribute up to $19,000 of eligible compensation on a pre-tax basis, and an employee age 50 or over could contribute up to an additional $6,000 on a pre-tax basis. Participant contributions over that amount may be made on an after-tax basis. A total of $56,000 per year ($62,000 per year including catch-up contributions for employees age 50 or over) could have been contributed to a participant's account in 2019, including our matching contribution and the participant's pre-tax and after-tax contributions. In addition, no more than $280,000 of annual compensation could have been taken into account in computing eligible compensation in 2019. The amount deferred on a pre-tax basis will be taxed to the participant as ordinary income when distributed from the DC Plan. The plan permits participants to self-direct the investment of their DC Plan accounts into one or more investment funds. All returns are at the market rate of the respective fund(s) selected by the participant.

The DC Plan also permits a participant (in addition to making pre-tax elective deferrals) to fund a separate "Roth Elective Deferral Account" (also known as a "Roth 401(k)") with after-tax contributions. A participant may make both pre-tax and Roth 401(k) contributions, subject to the limitations described in the preceding paragraph. All Bank contributions will be allocated to the participant's safe-harbor 401(k) account, subject to the maximum match amount described above. Under current IRS rules, withdrawals from a Roth 401(k) account (including investment gains) are tax-free after the participant reaches age 59 1/2 and if the withdrawal occurs at least five years after January 1 of the first year in which a contribution to the Roth 401(k) account occurs. In addition, the DC Plan permits in-plan Roth conversions, which allow participants to convert certain vested contributions into Roth contributions, similar to a Roth Individual Retirement Account conversion.

In November 2017, the board of directors approved an amendment to the DC Plan, effective January 1, 2018, to establish an employer-funded non-elective contribution ("NEC") program. This plan amendment ("NEC Amendment") provides an additional employer-funded benefit for certain DC Plan participants, including two of our NEOs, who were hired on or after February 1, 2010 and therefore do not participate in the Grandfathered DB Plan or the Amended DB Plan. Under the NEC Amendment, the Bank will make an additional NEC of 4% of base pay per year to the DC Plan account of each employee who is eligible to participate in the DC Plan and does not participate in the DB Plan. The NEC Amendment establishes a vesting schedule for NECs based on an employee's years of service at the Bank. Partial vesting begins when an eligible employee has attained at least two years of service. Eligible employees become fully vested in their NECs when they have attained five years of service. Both NEOs who participate in the NEC program are fully vested.

In November 2015, the board of directors established the SETP, effective January 1, 2016. As described below, the purpose of the SETP is to permit the NEOs and certain other employees to elect to defer compensation in addition to their DC Plan deferrals. The DC Plan and SETP provide benefits based upon amounts deferred by the participant and employer matching contributions based upon the amount of the participant's deferral and compensation.

Each DC Plan participant who is an officer with a title of First Vice President or higher (which includes all NEOs) is automatically eligible to become a SETP participant. In addition, the board of directors in its discretion may designate other DC Plan participants as eligible for SETP participation. The SETP constitutes a deferred compensation arrangement that complies with IRC Section 409A regulations. The SETP permits a participant to elect to have all or a portion of his or her base salary and/or annual incentive plan payment withheld and credited to the participant's deferral contribution account. The SETP provides that, subject to certain limitations, the Bank will contribute to the participant's account each plan year, up to the contribution that would have been made for the benefit of the participant under the DC Plan, including, if applicable, the NECs described above, as if the participant did not participate in the SETP and without regard to benefit or compensation limits imposed by the IRC. The plan permits participants to self-direct the investment of their deferred contribution account into one or more investment funds. All returns are at the market rate of the respective fund(s) selected by the participant. SETP benefits are paid out of an investment account established for each participant under a grantor trust that we have established as part of our general assets. The assets of the grantor trust are subject to the claims of our general creditors. The trust will be maintained such that the SETP is at all times considered unfunded and constitutes a mere promise by the Bank to make SETP benefit payments in the future. Any rights created under the SETP are unsecured contractual rights against the Bank.

The DB Plan, the 2005 SERP, the DC Plan and the SETP have all been amended and restated from time to time to comply with changes in laws and IRS regulations and to modify other benefit features.

Perquisites and Other Benefits. We offer the following additional perquisites and other benefits to all employees, including the NEOs, under the same general terms and conditions:

- medical, dental, and vision insurance (subject to employee expense sharing);
- vacation leave, which increases based upon officer title and years of service;
- life and long-term disability insurance (the CEO and the CFO are eligible for enhanced monthly benefits under our disability insurance program);
- travel and accident insurance, as well as kidnapping coverage, which include life insurance benefits;
- educational assistance;
- employee relocation assistance, where appropriate, for new hires; and
- student loan repayment assistance.

In addition, we provide as a taxable benefit to the NEOs and certain other officers spouse/guest travel to board of directors meetings and preapproved industry activities (limited to two events per year unless otherwise approved by the President - CEO, or by the Chief Internal Audit Officer in the case of the President - CEO).

Potential Payments Upon Termination or Change in Control.

Severance Pay Plan. The board of directors has adopted a Severance Pay Plan that pays each NEO, upon a qualifying termination as described below (or in the Bank's discretion on a case-by-case basis), up to a maximum 52 weeks of base pay computed at the rate of 4 weeks of severance pay for each year of service with a minimum of 8 weeks of base pay to be paid. In addition, the plan pays a lump sum amount equal to the NEO's cost to maintain health insurance coverage under the Consolidated Omnibus Budget Reconciliation Act ("COBRA") for the time period applicable under the severance pay schedule. The Severance Pay Plan may be amended or eliminated by the board at any time.

The Severance Pay Plan does not apply to NEOs who have entered into a KESA with the Bank or who are participants under the Bank's KESP if a qualifying event has triggered payment under the terms of the KESA or the KESP. As of the date of this Report, Ms. Konich is the only NEO with whom we have a KESA; all other NEOs are participants under the KESP. If any NEO's employment is terminated, but a qualifying event under the KESA or the KESP, as applicable, has not occurred, the provisions of the Severance Pay Plan apply.

The following qualifying events will trigger an NEO's right to severance benefits under the Severance Pay Plan:

- the elimination of a job or position;
- a reduction in force;
- a substantial job modification, to the extent the incumbent NEO is no longer qualified for, or is unable to perform, the restructured job; or
- the reassignment of staff requiring the relocation by more than 75 miles of the NEO's primary residence.

In addition, the Bank has discretion under the Severance Pay Plan to provide additional pay or outplacement services to amicably resolve employment separations involving our NEOs and other employees.

The following table lists the amounts that would have been payable to the NEOs under the Severance Pay Plan if triggered as of December 31, 2019, absent a qualifying event that would result in payments under Ms. Konich's KESA or the KESP.

NEO	Months of COBRA	Cost of COBRA	Weeks of Salary	Cost of Salary	Total Severance
Cindy L. Konich	12	$ 27,234	52	$ 931,996	$ 959,230
Gregory L. Teare	12	19,168	48	421,320	440,488
William D. Miller	9	6,555	36	276,120	282,675
Deron J. Streitenberger	7	15,887	28	203,560	219,447
K. Lowell Short, Jr.	11	17,571	44	286,484	304,055

The amounts listed above do not include payments and benefits to the extent that they are provided on a nondiscriminatory basis to NEOs generally upon termination of employment. These payments and benefits include:

- accrued salary and vacation pay;
- distribution of benefits under the DB Plan; and
- distribution of plan balances under the DC Plan.

Similarly, the amounts listed above also do not include payments from the SERP or the SETP. Amounts payable from the SERP may be found in the Pension Benefits Table. Account balances for the SETP may be found in the Non-Qualified Deferred Compensation Table.

Key Employee Severance Agreement and Key Employee Severance Policy. In general, key employee severance arrangements are intended to promote retention of certain officers in the event of discussions concerning a possible reorganization or change in control of the Bank, to ensure that merger or reorganization opportunities are evaluated objectively, and to provide compensation and other benefits to covered employees under certain circumstances in the event of a consolidation, change in control or reorganization of the Bank. As described in the following paragraphs, these arrangements provide for payment and, in some cases, continued and/or increased benefits if the officer's employment terminates under certain circumstances in connection with a reorganization, merger or other change in control of the Bank. If we were not in compliance with all applicable regulatory capital or regulatory leverage requirements at the time payment under the KESA or KESP becomes due, or if the payment would cause our Bank to fall below applicable regulatory requirements, the payment would be deferred until such time as we achieve compliance with such requirements. Moreover, if we were insolvent, have had a receiver or conservator appointed, or were in "troubled condition" at the time payment under an arrangement becomes due, the Finance Agency could deem such a payment to be subject to its rules limiting golden parachute payments.

<u>*Key Employee Severance Agreement.*</u> Ms. Konich's KESA was entered into during 2007. Under the terms of her agreement, Ms. Konich is entitled to a lump sum payment equal to a multiplier of her three preceding calendar years':

- base salary (less salary deferrals), bonus, and other cash compensation;
- salary deferrals and employer matching contributions under the DC Plan and SETP; and
- taxable portion of automobile allowance, if any.

Ms. Konich is entitled to a multiplier of 2.99, if she terminates for "good reason" or is terminated "without cause" during a period beginning 12 months before and ending 24 months after a reorganization. This agreement also provides that benefits payable to Ms. Konich pursuant to the SERP would be calculated as if she were three years older and had three more years of benefit service. The agreement with Ms. Konich also provides her with coverage for 36 months under our medical and dental insurance plans in effect at the time of termination (subject to her payment of the employee portion of the cost of such coverage).

We do not believe payments to Ms. Konich under the KESA would be subject to the restriction on change-in-control payments under IRC Section 280G or the excise tax applicable to excess change-in-control payments, because we are exempt from these requirements as a tax-exempt instrumentality of the United States government. If it were determined, however, that Ms. Konich is liable for such excise tax payment, the agreement provides for a "gross-up" of the benefits to cover such excise tax payment. This gross-up of approximately $3.4 million is not shown as a component of the value of the KESA in the table below.

Further, the agreement with Ms. Konich provides that she will be reimbursed for all reasonable accounting, legal, financial advisory and actuarial fees and expenses she incurs with respect to execution of the agreement or at the time of payment under the agreement. The agreement also provides that Ms. Konich will be reimbursed for all reasonable legal fees and expenses she incurs if we contest the enforceability of the KESA or the calculation of the amounts payable under the agreement, so long as she is wholly or partially successful on the merits or the parties agree to a settlement of the dispute.

If a reorganization of our Bank had triggered payments under Ms. Konich's KESA on December 31, 2019, the value of the payments for her would have been approximately as follows:

Benefit	Value
2.99 times average of the 3 prior calendar years base salary, bonuses and other cash compensation paid to the executive except for salary deferrals which are included below	$ 4,554,557
2.99 times average of the executive's salary deferrals and employer matching contributions under the DC Plan and SETP for the 3 prior calendar years	390,093
Additional amount under the SERP equal to the additional benefit calculated as if the executive were 3 years older and had 3 more years of credited service	2,519,170
Medical and dental insurance coverage for 36 months	55,872
Reimbursement of reasonable accounting, legal, financial advisory, and actuarial services (1)	15,000
Total value of KESA	$ 7,534,692

(1) The amount of $15,000 for reimbursement of reasonable accounting, legal, financial advisory, and actuarial services is an estimate and does not represent a minimum or maximum amount that could be paid.

Key Employee Severance Policy. On November 15, 2019, the board of directors re-adopted the KESP, which establishes three participation levels for covered employees: (i) Level 1 Participants, which include any Executive Vice President, (ii) Level 2 Participants, which include any Senior Vice President, and (iii) Level 3 Participants, which include any other officer designated by the HR Committee to be a Level 3 Participant from time to time. Thus, covered executives under the KESP (as of the date of filing of this report) include all NEOs other than Ms. Konich. Mr. Teare, Mr. Streitenberger and Mr. Miller are Level 1 Participants, and Mr. Short is a Level 2 Participant.

Under the KESP, if the covered employee terminates for "good reason" or is terminated without "cause," in either case within six months before or 24 months after a reorganization, the covered employee is entitled to a lump-sum payment equal to a multiple (2.0 for Level 1 Participants, 1.5 for Level 2 Participants and 1.0 for Level 3 Participants) of the average of his or her three preceding calendar years' base salary (inclusive of amounts deferred under a qualified or nonqualified plan) and gross bonus (inclusive of amounts deferred under a qualified or nonqualified plan); provided that, for any calendar year in which the covered employee received base salary for less than the entire year, the gross amount shall be annualized as if such amount had been payable for the entire calendar year. All amounts payable under the KESP are capped at an amount equal to one dollar ($1) less than the aggregate amount which would otherwise cause any such payments to be considered a “parachute payment” within the meaning of Section 280G of the IRC.

In addition, to the extent the covered employee is eligible, he or she will continue after a compensated termination to be covered by the Bank’s medical and dental insurance plans in effect immediately prior to the compensated termination, subject to the covered employee’s payment of the employee’s portion of the cost of such continued coverage. The coverage will continue for Level 1, Level 2 and Level 3 Participants for 24 months, 18 months and 12 months, respectively. In the event the covered employee is ineligible under the terms of such plans for continuing coverage or such plans shall have been modified, the Bank will provide through other sources coverage which is substantially equivalent to the coverage provided immediately prior to the compensated termination, subject to the covered employee’s payment of a comparable portion of the cost of such continued coverage as under the Bank’s medical and dental insurance plans. The KESP also provides for outplacement services for all covered employees.

Summary Compensation Table

Name and Principal Position	Year	Salary	Non-Equity Incentive Plan Compensation [(1)]	Change in Pension Value and Nonqualified Deferred Compensation Earnings [(2)]	All Other Compensation [(3)(4)]	Total
Cindy L. Konich President - CEO (PEO)	2019	$931,996	$ 839,154	$ 5,665,000	$ 69,610	$ 7,505,760
	2018	887,614	792,565	979,000	53,257	2,712,436
	2017	829,530	765,447	3,980,000	49,772	5,624,749
Gregory L. Teare EVP - CFO (PFO)	2019	456,430	303,037	368,000	28,353	1,155,820
	2018	430,586	293,358	178,000	25,835	927,779
	2017	410,072	266,778	234,000	24,604	935,454
William D. Miller EVP - CRCO	2019	398,840	271,443	—	27,964	698,247
	2018	365,898	255,384	—	34,028	655,310
	2017	345,176	255,334	—	—	600,510
Deron J. Streitenberger EVP - CBOO	2019	378,040	253,559	—	28,959	660,558
	2018	340,574	224,067	—	27,500	592,141
	2017	327,470	107,451	—	16,200	451,121
K. Lowell Short, Jr. SVP - CAO	2019	338,572	222,766	223,000	21,256	805,594
	2018	325,546	218,274	77,000	19,533	640,353
	2017	313,014	215,953	137,000	18,781	684,748

(1) The Non-Equity Incentive Plan Compensation table below presents the components of the "Non-Equity Incentive Plan Compensation" column and the dates that these amounts were paid.

(2) These amounts represent a change in pension value under the Grandfathered DB Plan, Amended DB Plan and the SERP, as applicable. The change in pension values are determined by calculating the present values of pension benefits accrued through the beginning and ending plan valuation dates. The calculations incorporate various assumptions and changes in compensation, age and tenure, and utilize discount interest rates based on market interest rates. Therefore, changes in market interest rates can have a significant impact on the change in pension value. As noted under the Pension Benefits Table, the discount rates used for 2019 were significantly lower than those used for 2018, which resulted in significant increases in pension values in 2019. No portion of this change in pension value is realizable until a qualifying event occurs, such as retirement, and therefore, no portion of this change in pension value has been paid or made available to any of the NEOs. No NEO received preferential or above-market earnings on deferred compensation.

(3) Includes contributions to the DC Plan, NEC program, and the SETP, as applicable, for Ms. Konich ($55,920), Mr. Teare ($27,386), Mr. Miller ($26,998), Mr. Streitenberger ($28,000), and Mr. Short ($20,314). For Ms. Konich, also includes $10,912 of perquisites and other personal benefits comprised of supplemental long-term disability insurance premium, a cash award for years of service (available to all employees upon attainment of certain service thresholds), and a nominal gift card provided as a holiday gift to all employees in the same amount. None of the other NEOs received more than $10,000 in perquisites or other personal benefits.

(4) Includes life insurance policy premiums and income tax gross-ups provided to all employees related to holiday gift cards and years of service awards, as applicable. There were no other perquisites or benefits that are available to the NEOs that are not available to all other employees.

Non-Equity Incentive Plan Compensation

Name	Year	Annual Award Amounts Earned	Annual Award Date Paid	Deferred Award Amounts Earned [(1)]	Deferred Award Date Paid	Total Non-Equity Incentive Plan Compensation
Cindy L. Konich	2019	$ 372,798	3/6/2020	$ 466,356	3/6/2020	$ 839,154
	2018	442,121	3/1/2019	350,444	3/1/2019	792,565
	2017	388,842	2/23/2018	376,605	2/23/2018	765,447
Gregory L. Teare	2019	146,058	3/6/2020	156,979	3/6/2020	303,037
	2018	171,425	3/1/2019	121,933	3/1/2019	293,358
	2017	153,777	2/23/2018	113,001	2/23/2018	266,778
William D. Miller [(2)]	2019	135,606	3/6/2020	135,837	3/6/2020	271,443
	2018	145,847	3/1/2019	109,537	3/1/2019	255,384
	2017	132,893	2/23/2018	122,441	2/23/2018	255,334
Deron J. Streitenberger	2019	120,973	3/6/2020	132,586	3/6/2020	253,559
	2018	118,641	3/1/2019	105,426	3/1/2019	224,067
	2017	107,451	2/23/2018	(a)	(a)	107,451
K. Lowell Short, Jr. [(3)]	2019	94,800	N/A	127,966	3/6/2020	222,766
	2018	113,406	N/A	104,868	N/A	218,274
	2017	102,708	N/A	113,245	N/A	215,953

(1) Amounts earned in 2019, 2018, and 2017 represent the 2016, 2015, and 2014 Deferred Awards, respectively.

(2) Mr. Miller elected to defer 5% of his 2019 Annual Award pursuant to the SETP. The amounts not deferred were paid on the date indicated.

(3) Mr. Short elected to defer 100% of his 2019, 2018, and 2017 Annual Awards, and 100% of his 2015 and 2014 Deferred Awards payable in 2019 and 2018, respectively, pursuant to the terms of the SETP.

(a) Mr. Streitenberger was not a Level I participant in the Incentive Plan when the 2014 Deferred Awards were made.

Grants of Plan-Based Awards Table for 2019

Name	Plan Name	Grant Date	Estimated Future Payouts Under Non-Equity Incentive Plans Threshold (1) (2)	Target	Maximum
Cindy L. Konich	Incentive Plan - Annual	1/25/2019	$ 11,650	$ 372,798	$ 465,998
	Incentive Plan - Deferred	1/25/2019	279,599	372,798	465,998
Gregory L. Teare	Incentive Plan - Annual	1/25/2019	4,564	136,929	182,572
	Incentive Plan - Deferred	1/25/2019	109,543	146,058	182,572
William D. Miller	Incentive Plan - Annual	1/25/2019	3,988	119,652	159,536
	Incentive Plan - Deferred	1/25/2019	101,704	135,606	169,507
Deron J. Streitenberger	Incentive Plan - Annual	1/25/2019	3,780	113,412	151,216
	Incentive Plan - Deferred	1/25/2019	90,730	120,973	151,216
K. Lowell Short, Jr.	Incentive Plan - Annual	1/25/2019	2,963	88,875	118,500
	Incentive Plan - Deferred	1/25/2019	71,100	94,800	118,500

(1) The Incentive Plan - Annual threshold payout is the amount expected to be paid when meeting the threshold for the smallest weighted of the nine components of the 2019 Annual Award Performance Period Goals. If the threshold for the smallest weighted of the nine components was achieved, but the threshold for all of the other components was not reached, the payout would be 2.50% of the maximum Annual Award for each of the NEOs (1.25% x earned base salary for Ms. Konich, 1.00% x earned base salary for Mr. Teare, Mr. Miller, and Mr. Streitenberger and 0.88% x earned base salary for Mr. Short). There was no guaranteed payout under the 2019 Annual Award provisions of the Incentive Plan. Therefore, the minimum that could be paid out under this plan is $0 for each NEO.

(2) The Incentive Plan - Deferred threshold payout is based upon the amount earned under the Incentive Plan - Annual and is further dependent on attaining the threshold over the three-year deferral period (2020-2022). The threshold is the amount expected to be paid when meeting the threshold for achievement under the Deferred Award provisions of the Incentive Plan over the three-year period. Depending on our performance during the Deferral Performance Period, the Final Award will be worth 75% at Threshold, 100% at Target or 125% at Maximum of the original amount of the Deferred Award (from the 2019 Incentive Plan - Annual Award Performance Period table previously presented). There is no guaranteed payout under the Deferred Award provisions of the Incentive Plan. Therefore, the minimum that could be paid out to an NEO under this plan is $0.

The Non-Equity Incentive Plan Compensation - 2019 table previously presented shows the amounts actually earned and paid under the 2019 Annual Award provisions of the Incentive Plan.

Pension Benefits Table

Name (1)	**Plan Name**	**Number of Years of Credited Service** (2)	**Present Value of Accumulated Benefits**	**Payments During Last Fiscal Year**
Cindy L. Konich	DB Plan	35	$ 2,983,000	$ —
	SERP	35	20,447,000	—
Gregory L. Teare (3)	DB Plan	17	829,000	—
	SERP	11	671,000	—
K. Lowell Short, Jr.	DB Plan	9	532,000	—
	SERP	9	300,000	—

(1) Mr. Miller and Mr. Streitenberger are not eligible to participate in the DB Plan or the SERP.
(2) For each of the NEOs, the years of credited service have been rounded to the nearest whole year.
(3) Mr. Teare earned six years of credited service in the DB Plan as an employee of the FHLBank of Seattle.

Pension values are determined by calculating the present values of pension benefits accrued through the plan valuation dates. The calculations incorporate various assumptions and changes in compensation, age and service, and utilize discount interest rates based on market interest rates. The present value of the accumulated benefits is based upon a retirement age of 65, using the PRI-2012 white collar worker annuitant tables (with Scale MP-2019), a discount rate of 3.22% for the DB Plan, and a discount rate of 2.55% for the SERP for 2019, compared to 4.22% and 3.64%, respectively, for 2018. The discount rates for the DB Plan and the SERP are based on the Financial Times Stock Exchange ("FTSE") Group Pension Liability Index and the FTSE Group Pension Discount Curve, respectively, both of which are determined by yields on high-quality corporate bonds at the valuation dates.

Non-Qualified Deferred Compensation - 2019

Name	Executive Contributions in Last FY (1)	Bank Contributions in Last FY (2)	Aggregate Earnings in Last FY (3)	Aggregate Withdrawals / Distributions in Last FY	Aggregate Balance at Last FYE (4)
Cindy L. Konich	$ 55,920	$ 39,120	$ 92,765	$ —	$ 448,069
Gregory L. Teare	63,900	10,586	16,924	—	196,603
William D. Miller	—	4,754	24,387	—	105,860
K. Lowell Short, Jr.	233,793	5,055	47,038	—	625,492

(1) The contributions by Ms. Konich, Mr. Teare, and Mr. Miller are included in the "Salary" reported in the Summary Compensation Table for 2019. Of the contributions by Mr. Short, $23,700 are included in the "Salary" reported in the Summary Compensation Table for 2019. The remaining $210,093 of contributions by Mr. Short reflect the amounts deferred related to the 2018 Annual Award and the 2015 Deferred Award that are reported as "Non-Equity Incentive Plan Compensation" in the Summary Compensation Table for 2018.

(2) The amounts in this column are included as a component of "All Other Compensation" in the Summary Compensation Table.

(3) The amounts reported in this column are not reported in the Summary Compensation Table because these amounts are not above market or preferential.

(4) The amounts reported in this column have been reported in the Summary Compensation Table either in 2019 or prior years, with the exception of aggregate earnings.

The SETP is described in more detail above in "Retirement Benefits - DC Plan and SETP." Participants in the SETP elect the timing of distribution of their benefits; provided, however, that a participant is permitted to withdraw all or a portion of the amount in his or her account, in a single lump sum, if the participant has experienced an unforeseeable emergency (as defined by the SETP and determined by an administrative committee appointed by our board) or in certain other, limited circumstances. None of the NEOs made a withdrawal or received a distribution from the SETP during 2019.

Principal Executive Officer Pay Ratio Disclosure

Our President - CEO is our PEO. As described below, for the year ended December 31, 2019, we determined the ratio of the total compensation, as determined in the Summary Compensation Table ("Total Compensation"), of our PEO to the Total Compensation of the Bank's median employee.

Total Compensation includes, among other components, amounts attributable to changes in pension value under the Bank's Grandfathered DB Plan, Amended DB Plan and the SERP, as applicable. Such change in pension value represents the difference between the present value of pension benefits accrued through the beginning valuation date and the present value of pension benefits accrued through the ending valuation date. The present value calculations incorporate many assumptions and utilize discount rates based on market interest rates. Therefore, changes in market interest rates can have a significant impact on the change in pension value. The discount rates used as of December 31, 2019 were significantly lower than the discount rates used as of December 31, 2018, which caused a significant increase in the change in pension values for 2019. Additionally, the change in pension value varies considerably among employees based upon their tenure at the Bank, their annual compensation and several other factors. Finally, no portion of this change in pension value has been paid or made available to the PEO or median employee; in fact, no portion is realizable until a qualifying event occurs, such as retirement.

For 2019, the Total Compensation of the PEO was $7,505,760. As of December 31, 2019, our PEO had 35 years of credited service under the Grandfathered DB Plan and SERP. Her Total Compensation therefore includes the change in the present value of her pension benefits, which amounted to $5,665,000, and constituted 75% of her reported 2019 Total Compensation. Excluding the 2019 change in pension value, the PEO’s Total Compensation was $1,840,760.

We determined that, during 2019, there were no changes in our employee population or employee compensation arrangements that we believe would result in a significant change to our pay ratio disclosure. Therefore, as permitted by SEC rules, we are using the same median employee that we initially identified for our 2017 calculations.

We identified the median employee by first determining the total of salary, wages, bonuses (if any) and incentive awards (collectively, "cash compensation") for each of the full-time and part-time employees of our Bank on the last pay date of 2017 and annualizing the cash compensation of those who were not employed by the Bank for all of 2017. We then ranked the 2017 annual cash compensation for all such employees from lowest to highest, excluding the PEO.

There were two employees at the median based on cash compensation, but neither participates in a pension plan. We therefore selected as the median employee the individual who participates in the same plan as our PEO (the Grandfathered DB Plan), and whose 2017 annual cash compensation was closest to that of the actual median employees. We made no other material assumptions or adjustments in identifying the median employee. This approach ensures that the median employee's Total Compensation, like the PEO's Total Compensation, includes a change in pension value and thereby provides an appropriate comparison. We then calculated the median employee's Total Compensation in the same manner that we calculated Total Compensation for the PEO.

For 2019, the Total Compensation of the median employee was $264,216. As of December 31, 2019, our median employee had eleven years of credited service in the DB Plan. The median employee's Total Compensation includes a change in the present value of pension benefits of $130,000. As a result, the ratio of the PEO’s Total Compensation to that of the median employee was 28:1. Excluding the 2019 changes in pension value from the Total Compensation of both the PEO and the median employee, the ratio was 14:1.

Director Compensation

Finance Agency regulations provide that each FHLBank may pay its directors reasonable compensation for the time required of them and their necessary expenses in the performance of their duties, as determined by a compensation policy to be adopted annually by the FHLBank's board of directors. The Finance Agency Director annually reviews the compensation and expenses of FHLBank directors and has the authority to determine that the compensation and/or expenses paid to directors are not reasonable. In such case, the Director could order the FHLBank to refrain from making any further payments; however, such an order would only be applied prospectively and would not affect any compensation earned but unpaid or expenses incurred but not yet reimbursed.

2019 Compensation. In September 2018, after considering McLagan market data research and a director fee comparison among the FHLBanks, the board of directors adopted a director compensation and expense reimbursement policy for 2019 ("2019 Policy"). Under the 2019 Policy, each director had an opportunity to earn an annual fee (divided into quarterly payments), subject to the combined fee limit shown below. The fees are intended to reflect the time required of directors in the performance of official Bank and board business, measured principally by meeting attendance thresholds and participation at board and committee meetings and secondarily by performance of other duties, which include:

- preparing for board and committee meetings;
- chairing meetings as appropriate;
- reviewing materials sent to directors on a periodic basis;
- attending other related events such as management conferences, FHLBank System meetings, director training and new director orientation; and
- fulfilling the responsibilities of directors.

Additional compensation is paid for serving as chair or vice chair of the board of directors or as chair of a board committee. Because we are a cooperative and only member institutions may own our stock, no director may receive equity-based compensation. The 2019 Policy provides that director fees were to be paid at the end of each quarter.

The 2019 Policy authorizes a reduction of a director’s fourth quarterly payment if a majority of disinterested directors determines that such director’s performance, ethical conduct or attendance is significantly deficient. No such reductions occurred for 2019.

The following table summarizes the annual fee limits of the 2019 Policy as approved by the board of directors.

Position	Annual Fee Limit
Chair	$ 132,500
Vice Chair	119,000
Audit Committee Chair	118,000
Affordable Housing Committee Chair	113,000
Finance/Budget Committee Chair	113,000
Human Resources Committee Chair	113,000
Risk Oversight Committee Chair	113,000
Technology Committee Chair	113,000
All other directors	103,000

Director Compensation Table for 2019

Name	Fees Earned or Paid-in Cash	Total
Jonathan P. Bradford	$ 103,000	$ 103,000
Ronald Brown	103,000	103,000
Charlotte C. Decker	103,000	103,000
Robert M. Fisher	103,000	103,000
Karen F. Gregerson	113,000	113,000
Michael J. Hannigan, Jr.	103,000	103,000
Jeffrey G. Jackson	103,000	103,000
Carl E. Liedholm	113,000	113,000
James L. Logue III	119,000	119,000
Robert D. Long	118,000	118,000
Michael J. Manica	103,000	103,000
Dan L. Moore	132,500	132,500
Larry W. Myers	103,000	103,000
Christine Coady Narayanan	113,000	113,000
John L. Skibski	113,000	113,000
Larry A. Swank	113,000	113,000
Ryan M. Warner	103,000	103,000

We provide various travel, accident, and kidnapping insurance coverages for all of our directors, officers and employees. These policies provide a life insurance benefit in the event of death within the scope of the policy. We also reimburse directors or directly pay for reasonable travel and related expenses in accordance with the director compensation and travel reimbursement policy.

Directors' Deferred Compensation Plan. In 2015, we established the DDCP, effective January 1, 2016. The DDCP permits members of our board of directors to elect to defer all or a portion of the fees payable to them for a calendar year for their services as directors. The DDCP constitutes a deferred compensation arrangement that complies with Section 409A of the IRC, as amended. Any duly elected and serving member of our board may become a participant in the DDCP.

All contributions credited to a participant's account will be invested in an irrevocable grantor trust established to provide for the Plan's benefits. The DDCP is administered by an administrative committee appointed by our board, currently the HR Committee. The trust will be maintained such that the DDCP at all times for income tax purposes will be unfunded and constitutes a mere promise by the Bank to make DDCP benefit payments in the future. Any rights created under the DDCP are unsecured contractual rights against the Bank. The Bank establishes an investment account for each participant under the trust, which at all times remains an asset of the Bank, subject to claims of the Bank's general creditors. The DDCP permits participants to allocate their investment account among investment options established by the HR Committee or the board. No above-market or preferential earnings are paid on any balances under the DDCP. In general, a participant may elect to have his or her deferred compensation paid in a single lump sum payment, in annual installment payments over a period of two to five years, or in a combination of both such methods.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The following table sets forth the beneficial ownership of our Class B common stock as of February 29, 2020, by each shareholder that beneficially owned more than 5% of the outstanding shares. Each shareholder named (with its parent holding company) has sole voting and investment power over the shares beneficially owned.

Name and Address of Shareholder	Number of Shares Owned	% Outstanding Shares
Flagstar Bank, FSB - 5151 Corporate Drive, Troy, MI	3,025,028	13.0 %
The Lincoln National Life Insurance Company - 1300 S Clinton Street, Fort Wayne, IN	1,723,500	7.4 %
TCF National Bank - 2508 South Louise Avenue, Sioux Falls, SD [1]	1,488,477	6.4 %
Jackson National Life Insurance Company - 1 Corporate Way, Lansing, MI	1,253,921	5.4 %
Total	7,490,926	32.2 %

(1) TCF National Bank, as successor by merger to Chemical Bank, is a non-member shareholder.

The majority of our directors are officers and/or directors of our financial institution members. The following table sets forth the financial institution members that have an officer and/or director serving on our board of directors as of February 29, 2020.

Director Name	Name of Member	Number of Shares Owned by Member	% of Outstanding Shares
Brian D. J. Boike	Flagstar Bank, FSB	3,025,028	13.02 %
Ronald Brown	United Fidelity Bank, FSB	62,019	0.27 %
Robert M. Fisher	Lake-Osceola State Bank	13,501	0.06 %
Karen F. Gregerson	The Farmers Bank	17,325	0.07 %
Jeffrey G. Jackson	Michigan State University Federal Credit Union	130,500	0.56 %
Michael J. Manica	United Bank of Michigan	54,000	0.23 %
Dan L. Moore	Home Bank SB	23,205	0.10 %
Larry W. Myers	First Savings Bank	141,445	0.61 %
Ryan M. Warner	The Bippus State Bank	7,875	0.03 %
Total		3,474,898	14.95 %

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

We use acronyms and terms throughout this Item that are defined herein or in the *Defined Terms.*

Related Parties

We are a cooperative institution and owning shares of our Class B stock is generally a prerequisite to transacting business with us. As such, we are wholly-owned by financial institutions that are also our customers (with the exception of shares held by former members, or their legal successors, in the process of redemption). In addition, our directors may serve as officers and/or directors of our members, and we conduct our advances and AMA business almost exclusively with our members. Therefore, in the normal course of business, we extend credit to and purchase mortgage loans from members with officers or directors who may serve as our directors. However, such transactions are on substantially the same terms, including interest rates and collateral, as those prevailing at the time for comparable transactions with persons not related to our Bank (i.e., other members), and that do not involve more than the normal risk of collectability or present other unfavorable terms.

Also, in the normal course of business, some of our member directors and independent directors are officers of entities that may directly or indirectly participate in our AHP. All AHP transactions, however, including those involving (i) a member (or its affiliate) that owns more than 5% of the Bank's capital stock, (ii) a member with an officer or director who is a director of our Bank, or (iii) an entity with an officer, director or general partner who serves as a director of our Bank (and that has a direct or indirect interest in the AHP transaction), are subject to the same eligibility and other program criteria and requirements and the same Finance Agency regulations governing AHP operations.

We do not extend credit to or conduct other business transactions with our directors, executive officers or any of our other officers or employees. Executive officers may obtain loans under certain employee benefit plans but only on the same terms and conditions as are applicable to all employees who participate in such plans.

Related Transactions

We have a Code of Conduct that requires all directors, officers and employees to disclose any related party interests through ownership or family relationship. These disclosures are reviewed by our ethics officers and, where appropriate, our board of directors to determine the potential for a conflict of interest. In the event of a conflict, appropriate action is taken, which may include: recusal of a director from the discussion and vote on a transaction in which the director has a related interest; removal of an employee from a project with a related party vendor; disqualification of related vendors from transacting business with us; or requiring directors, officers or employees to divest their ownership interest in a related party. The Corporate Secretary and ethics officers maintain records of all related party disclosures, and there have been no transactions involving our directors, officers or employees that would be required to be disclosed herein.

Director Independence

General. As of the filing date of this Form 10-K, we have 17 directors: pursuant to the Bank Act, nine were elected or re-elected as member directors by our member institutions and eight were elected or re-elected as "independent directors" by our member institutions. None of our directors are "inside" directors, that is, none of our directors are employees or officers of our Bank. Further, our directors are prohibited from personally owning stock in our Bank. Each of the nine member directors, however, is a senior officer or director of an institution that is our member and is encouraged to engage in transactions with us on a regular basis.

Our board of directors is required to evaluate and report on the independence of our directors under two distinct director independence standards. First, Finance Agency regulations establish independence criteria for directors who serve as members of our Audit Committee. Second, SEC rules require that our board of directors apply the independence criteria of a national securities exchange or automated quotation system in assessing the independence of our directors.

Finance Agency Regulations Regarding Independence. The Finance Agency director independence standards prohibit an individual from serving as a member of our Audit Committee if he or she has one or more disqualifying relationships with our Bank or our management that would interfere with the exercise of his or her independent judgment. Relationships considered to be disqualifying by our board of directors are: employment with us at any time during the last five years; acceptance of compensation from us other than for service as a director; serving as a consultant, advisor, promoter, underwriter or legal counsel for our Bank at any time within the last five years; and being an immediate family member of an individual who is or who has been an Executive Officer within the past five years. Our board of directors assesses the independence of each director under the Finance Agency's independence standards, regardless of whether he or she serves on the Audit Committee. As of the date of this Form 10-K, each of our directors is "independent" under these criteria relating to disqualifying relationships.

SEC Rules Regarding Independence. SEC rules require our board of directors to adopt a standard of independence with which to evaluate our directors. Pursuant thereto, our board adopted the independence standards of the New York Stock Exchange ("NYSE") to determine which of our directors are "independent," which members of our Audit Committee are not "independent," and whether our Audit Committee's financial expert is "independent."

As noted above, some of our directors who are "independent" (as defined in and for purposes of the Bank Act) are employed by companies that may from time to time have (or seek to have) limited business relationships with our Bank due to those companies' participation in projects funded in part through our AHP. None of those companies, however, has, or within the past three most recently completed fiscal years had a relationship with us that resulted in payments to, or receipts from, the Bank in excess of the limits set forth in the NYSE independence standards. Moreover, any business relationship between those directors' respective companies and the Bank is established and conducted on the same terms and conditions provided to similarly-situated third parties. After applying the NYSE independence standards, our board determined that, as of the date of this Form 10-K, our eight directors (Mses. Decker and Narayanan and Messrs. Bradford, Hannigan, Liedholm, Logue, Long and Swank) who are "independent" directors, as defined in and for purposes of the Bank Act, are also independent under the NYSE standards.

Based upon the fact that each member director is a senior officer or director of an institution that is a member of our Bank (and thus the member is an equity holder in our Bank), that each such institution routinely engages in transactions with us (which may include advances, MPP and AHP transactions), and that such transactions occur frequently and are encouraged in the ordinary course of our business and our member institutions' respective businesses, our board of directors concluded for the present time that none of the member directors meet the independence criteria under the NYSE independence standards. It is possible that, under a strict reading of the NYSE objective criteria for independence (particularly the criterion regarding the amount of business conducted with our Bank by the director's institution), a member director could meet the independence standard on a particular day. However, because the amount of business conducted by a member director's institution may change frequently, and because we generally desire to increase the amount of business we conduct with each member institution, we believe it is inappropriate to draw distinctions among the member directors based upon the amount of business conducted with our Bank by any director's institution at a specific time.

Our board of directors has a standing Audit Committee comprised of eight directors (including the ex-officio member), six of whom are member directors and two of whom are "independent" directors (according to Bank Act director classifications established by HERA). For the reasons noted above, our board of directors determined that none of the current member directors on our Audit Committee are "independent" under the NYSE standards for audit committee members. However, our board of directors determined that the independent director who serves as Chair of the Audit Committee and is one of the Bank's Audit Committee Financial Experts under SEC rules, due primarily to his previous experience as an audit partner at a major public accounting firm, is "independent" under the NYSE independence standards for Audit Committee members.

SEC Rule Regarding Audit Committee Independence. The Exchange Act, as amended by HERA, requires the FHLBanks to comply with the substantive Audit Committee director independence rules applicable to issuers of securities pursuant to the rules of the Exchange Act. Those rules provide that, to be considered an independent member of an Audit Committee, the director may not be an affiliated person of the Exchange Act registrant. The term "affiliated person" means a person that directly, or indirectly through one or more intermediaries, controls, or is controlled by, or is under common control with, the registrant. The rule provides a "safe harbor," whereby a person will not be deemed an affiliated person if the person is not the beneficial owner, directly or indirectly, of more than 10% of any class of voting securities of the registrant. All of our Audit Committee member directors' institutions presently meet this safe harbor.

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

The following table sets forth the aggregate fees billed or to be billed for the years ended December 31, 2019 and 2018 by our independent registered public accounting firm, PricewaterhouseCoopers LLP ($ amounts in thousands).

	2019	2018
Audit fees	$ 821	$ 755
Audit-related fees	47	56
Tax fees	—	—
All other fees	3	3
Total fees	$ 871	$ 814

Audit fees were incurred for professional services rendered for the audits of our financial statements. Audit-related fees were incurred for certain FHLBank System assurance and related services, as well as fees related to PwC's participation at FHLBank conferences. All other fees were incurred for non-audit services for an annual license for PwC's disclosure software.

We are exempt from all federal, state, and local taxation, except employment and real estate taxes. Therefore, no fees were paid for tax services during the years presented.

Our Audit Committee has adopted Independent Accountant Pre-approval Policies and Procedures ("Pre-approval Policy"). In accordance with the Pre-approval Policy and applicable law, on an annual basis, the Audit Committee reviews the list of specific services and projected fees for services to be provided for the next 12 months by our independent registered public accounting firm and pre-approves audit services, audit-related services, tax services and non-audit services, as applicable. Pre-approvals are valid until the end of the next calendar year, unless the Audit Committee specifically provides otherwise.

Under the Pre-approval Policy, the Audit Committee may delegate pre-approval authority to one or more of its members subject to a pre-approval fee limit. The Audit Committee has designated the Committee Chair as the member to whom such authority is delegated. Pre-approved actions by the Committee Chair as designee are reported to the Audit Committee at its next scheduled meeting. New services that have not been pre-approved by the Audit Committee that are in excess of the pre-approval fee level established by the Audit Committee must be presented to the entire Audit Committee for pre-approval.

ITEM 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES

The exhibits to this Annual Report on Form 10-K are listed below.

EXHIBIT INDEX

Exhibit Number	Description
3.1*	Organization Certificate of the Federal Home Loan Bank of Indianapolis, incorporated by reference to our Registration Statement on Form 10 (Commission File No. 000-51404) filed on February 14, 2006
3.2*	Bylaws of the Federal Home Loan Bank of Indianapolis, as amended effective June 28, 2019, incorporated by reference to Exhibit 3.1 of our Quarterly Report on Form 10-Q (Commission File No. 000-51404) filed on August 12, 2019
4.1*	Capital Plan of the Federal Home Loan Bank of Indianapolis, effective September 5, 2011 incorporated by reference to Exhibit 99.1 of our Current Report on Form 8-K (Commission File No. 000-51404) filed August 5, 2011
4.2	Capital Plan of the Federal Home Loan Bank of Indianapolis, effective February 10, 2020
4.3	Description of the Bank's Capital Stock
10.1*+	Form of Key Employee Severance Agreement for Executive Officers, incorporated by reference to Exhibit 99.1 of our Current Report on Form 8-K, (Commission File No. 000-51404) filed on November 20, 2007

Exhibit Number	Description
10.2*	Federal Home Loan Banks Amended and Restated P&I Funding and Contingency Plan Agreement, incorporated by reference to Exhibit 10.3 of our Annual Report on Form 10-K (Commission File No. 000-51404) filed on March 10, 2017
10.3*	Joint Capital Enhancement Agreement dated August 5, 2011, incorporated by reference to Exhibit 99.1 of our Current Report on Form 8-K (Commission File No. 000-51404) filed on August 5, 2011
10.4*+	2016 Supplemental Executive Thrift Plan, effective January 1, 2016, adopted on November 20, 2015, as amended by the First Amendment, effective January 1, 2018, adopted on January 19, 2018, incorporated by reference to Exhibit 10.7 of our Annual Report on Form 10-K (Commission File No. 000-51404) filed on March 9, 2018
10.5*+	Directors' Compensation and Expense Reimbursement Policy, effective January 1, 2019, incorporated by reference to Exhibit 10.1 of our Current Report on Form 8-K (Commission File No. 000-51404) filed on September 19, 2018
10.6+	Key Employee Severance Policy, re-adopted effective November 15, 2019
10.7*+	Federal Home Loan Bank of Indianapolis Incentive Plan, effective January 1, 2012, as updated on January 25, 2019, effective as of January 1, 2019, incorporated by reference to Exhibit 10.10 of our Annual Report on Form 10-K (Commission File No. 000-51404) filed on March 8, 2019
10.8*+	Federal Home Loan Bank of Indianapolis Incentive Plan, effective January 1, 2012, as updated on November 15, 2019, effective as of January 1, 2020, incorporated by reference to Exhibit 10.1 of our current Report on Form 8-K (Commission File No. 000-51404) filed on January 28, 2020
24	Power of Attorney - Annual Report on Form 10-K for Fiscal 2019, dated January 24, 2020
31.1	Certification of the President - Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
31.2	Certification of the Executive Vice President - Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
31.3	Certification of the Senior Vice President - Chief Accounting Officer pursuant to Section 302 of the Sarbanes - Oxley Act of 2002
32	Certification of the President - Chief Executive Officer, Executive Vice President - Chief Financial Officer, and Senior Vice President - Chief Accounting Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
101.INS	XBRL Instance Document
101.SCH	XBRL Taxonomy Extension Schema Document
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document
101.LAB	XBRL Taxonomy Extension Label Linkbase Document
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document

* These documents are incorporated by reference.

+ Management contract or compensatory plan or arrangement.

ITEM 16. FORM 10-K SUMMARY

None.

SIGNATURES

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

FEDERAL HOME LOAN BANK OF INDIANAPOLIS

/s/ CINDY L. KONICH
Cindy L. Konich
President - Chief Executive Officer
(Principal Executive Officer)
Date: March 10, 2020

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated below:

Signature	Title	Date
/s/ CINDY L. KONICH **Cindy L. Konich** **(Principal Executive Officer)**	President - Chief Executive Officer	March 10, 2020
/s/ GREGORY L. TEARE **Gregory L. Teare** **(Principal Financial Officer)**	Executive Vice President - Chief Financial Officer	March 10, 2020
/s/ K. LOWELL SHORT, JR. **K. Lowell Short, Jr.** **(Principal Accounting Officer)**	Senior Vice President - Chief Accounting Officer	March 10, 2020
/s/ DAN L. MOORE* **Dan L. Moore**	Chair of the board of directors	March 10, 2020
/s/ JAMES L. LOGUE III* **James L. Logue III**	Vice Chair of the board of directors	March 10, 2020
/s/ BRIAN D.J. BOIKE* **Brian D. J. Boike**	Director	March 10, 2020
/s/ JONATHAN P. BRADFORD* **Jonathan P. Bradford**	Director	March 10, 2020
/s/ RONALD BROWN* **Ronald Brown**	Director	March 10, 2020
/s/ CHARLOTTE C. DECKER* **Charlotte C. Decker**	Director	March 10, 2020
/s/ ROBERT M. FISHER* **Robert M. Fisher**	Director	March 10, 2020
/s/ KAREN F. GREGERSON* **Karen F. Gregerson**	Director	March 10, 2020

Signature	Title	Date
/s/ MICHAEL J. HANNIGAN, JR.* **Michael J. Hannigan, Jr.**	Director	March 10, 2020
/s/ JEFFREY G. JACKSON* **Jeffrey G. Jackson**	Director	March 10, 2020
/s/ CARL E. LIEDHOLM* **Carl E. Liedholm**	Director	March 10, 2020
/s/ ROBERT D. LONG* **Robert D. Long**	Director	March 10, 2020
/s/ MICHAEL J. MANICA* **Michael J. Manica**	Director	March 10, 2020
/s/ LARRY W. MYERS* **Larry W. Myers**	Director	March 10, 2020
/s/ CHRISTINE COADY NARAYANAN* **Christine Coady Narayanan**	Director	March 10, 2020
/s/ LARRY A. SWANK* **Larry A. Swank**	Director	March 10, 2020
/s/ RYAN M. WARNER* **Ryan M. Warner**	Director	March 10, 2020

* By: /s/ K. LOWELL SHORT, JR.

K. Lowell Short, Jr., Attorney-In-Fact

Exhibit 4.2

FEDERAL HOME LOAN BANK
OF INDIANAPOLIS

CAPITAL PLAN

Revised, Effective February 10, 2020

☐ **First Approved by the Board of Directors June 28, 2002, as amended July 24, 2008, March 13, 2009, May 19, 2011 and June 28, 2019**

☐ **First Approved by the Federal Housing Finance Board on July 10, 2002, with Amendments Approved by the Federal Housing Finance Board on October 9, 2002, and with Amendments Approved by the Federal Housing Finance Agency on March 6, 2009, May 18, 2009, August 5, 2011, and December 13, 2019**

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Capital Plan

I. Introduction

A. Capital Overview

The Gramm-Leach-Bliley Act of 1999 specified that the Federal Home Loan Banks ("FHLBanks") transition from a "subscription" capital form to a permanent capital form. The Act also imposes certain risk-based capital requirements on the FHLBanks. The Federal Home Loan Bank of Indianapolis ("FHLBI") initially adopted its capital plan in 2002 in accordance with the implementing regulations (as amended, the "Capital Regulations") issued by the Federal Housing Finance Board ("Finance Board"), predecessor to the Federal Housing Finance Agency ("Finance Agency"). Subsequent amendments to the FHLBI capital plan were approved by the Finance Board on October 9, 2002 and by the Finance Agency on March 6, 2009, May 18, 2009 and August 5, 2011. The FHLBI is now amending and restating this capital plan (as amended and restated herein, "Capital Plan" or "Plan") to: (i) modify the ranges of the Capital Stock purchase percentage requirements relating to member activities, (ii) update certain terminology and references to Finance Agency regulations, (iii) remove certain transitional provisions that pertained to the initial adoption of the capital plan in 2002 but are no longer applicable under the Capital Regulations, and (iv) make other clarifying and technical changes. Terms used but not defined herein shall be used as defined in the Act or the Capital Regulations.

B. Plan Summary

☐ The Plan provides for the issuance of Class B Stock, divided into Subseries B-1 and B-2, based upon the greater of a percentage of a member's Total Mortgage Assets (its Membership Stock Requirement) or its Activity-based Stock Requirement with the FHLBI, with a minimum investment of $1,000. Class B Stock is redeemable upon five (5) years' prior written notice, subject to certain restrictions and limitations.

☐ The Total Mortgage Asset percentage range shall be 0.75% to 1.25%, and the Membership Stock Requirement is subject to a maximum stock purchase of $35,000,000. The Activity-based Stock Requirement is calculated as a percentage of the underlying activity and does not have a minimum or maximum dollar amount.

☐ The ranges for each type of Activity-based Asset shall be as follows: a. Credit Products: (i) Advances - 1.0% – 6.0%, (ii) Lines of Credit - 1.0% - 6.0%, and (iii) Standby Letters of Credit – 0.1% – 6.0%; b. Derivative Contracts - 1.0% - 6.0%; and c. Acquired Member Assets - 0.0% - 6.0%.

☐ The Plan provides for FHLBI discretionary repurchases of Excess Stock, subject to certain limitations.

☐ The Plan provides that the FHLBI may make offerings of additional shares of Capital Stock from time to time.

☐ The Stock Requirement for a Former Member that has had its membership terminated by the Board of Directors shall equal its Activity-based Stock Requirement.

☐ The Plan acknowledges that the FHLBI must maintain certain capital requirements under the Act and Finance Agency regulations, and provides that required investments in Capital Stock may be adjusted by the Board of Directors, as needed, to enable FHLBI to continue to meet those capital requirements.

☐ Required stock subject to a member redemption request or a withdrawal from membership request, or held by a member after an involuntary termination or by a non-member after a merger with a member shall be converted to Subseries B-2 stock and shall receive eighty percent (80%) of the Subseries B-1 Stock declared dividend.

This Summary is not intended to be a complete description of all Plan provisions and should not be construed as such. This Summary is qualified in its entirety by reference to the specific provisions of the Plan.

C. Transition Provisions

The transition provisions for this amended and restated Capital Plan are set forth in Section IX.

D. General

In certain sections of this Capital Plan, the terms "in its discretion" or "in its sole discretion" are used when describing the FHLBI's decision-making authority. The FHLBI acknowledges that the Finance Agency, in its role as safety and soundness regulator, may limit the FHLBI's discretion in certain circumstances.

The Capital Plan takes into account the applicable provisions of the Act and the Capital Regulations and it is not intended to contradict such provisions. If any provisions of the Capital Plan conflict with the actual provisions of the Act or the Capital Regulations, as amended from time to time, the provisions of the Act or the Capital Regulations, as then in effect, will control.

II. Definitions

In this Capital Plan, unless the context otherwise requires, (a) words describing the singular number shall include the plural and vice versa and (b) any requirement of written notice by any entity may be satisfied by electronic mail delivery. The following are defined terms used in this Plan.

"Acquired Member Assets" or "AMA" means those assets acquired from a member that meet the requirements of 12 C.F.R. Part 1268 or successor Finance Agency regulations. This term includes Mortgage Purchase Program ("MPP") assets.

"Act" means the Federal Home Loan Bank Act, as amended.

"Activity-based Assets" means the total of a member's outstanding Credit Products, Derivative Contracts and Acquired Member Assets, which shall be calculated using the following balances: (a) for lines of credit, the commitment amount; (b) for standby letters of credit, the maximum available credit under the standby letter of credit; (c) for all other Advances or Credit Products, the principal balance on the FHLBI's books; (d) for Derivative Contracts, the amount of collateral required for the transaction; and (e) for Acquired Member Assets that were (before, on or after the Plan's Effective Date) subject to an Activity-based Stock Requirement as of the date of the applicable MDC, the outstanding principal balance as adjusted from time to time on the FHLBI's books.

"Activity-based Stock Requirement" means the sum of the outstanding Activity-based Assets of a member multiplied by the applicable percentage for each type of Activity-based Asset, in effect from time to time pursuant to Section V.

"Advances" means loans to a member that are: (a) provided pursuant to a written agreement; (b) supported by a note or other written evidence of the member's obligations; and (c) secured by collateral in accordance with the Act, Finance Agency regulations and the FHLBI's Credit Policy, as such policy has been approved from time to time by the Board of Directors.

"Board" or "Board of Directors" means the board of directors of the FHLBI.

"Business Day" means a day which is not (a) a Saturday, Sunday or legal holiday on which FHLBI is authorized to remain closed or (b) a day on which the Federal Reserve Bank of New York is closed.

"Capital Ratio" means Total Capital divided by Total Assets.

"Capital Regulations" means 12 C.F.R. Part 1277 of the Finance Agency regulations, as in effect from time to time.

"Capital Stock" means, collectively, all capital stock issued and outstanding under this Capital Plan.

"Cash Management Services Account" or "CMS Account" means a demand deposit account held by a member at the FHLBI.

"Class B Stock" means Capital Stock with a five-year Redemption Period that is authorized to be issued under this Capital Plan, and includes Subseries B-1 Stock and Subseries B-2 Stock.

"Credit Products" means Advances, lines of credit, standby letters of credit, Affordable Housing Program ("AHP") advances, and Community Investment Program ("CIP") advances offered by the FHLBI.

"Credit Risk Capital" means an amount of Permanent Capital equal to the sum of the credit risk capital charges for FHLBI's assets, off-balance sheet items and Derivative Contracts. These charges are calculated using the methodology and risk weights assigned to each classification in the Capital Regulations. Assets will be rated in the manner provided by the Capital Regulations, as in effect at the time the rating is performed.

"Derivative Contract" means generally a financial contract, the value of which is derived from the values of one or more underlying assets, reference rates, or indices of asset values, or credit-related events. Derivative Contracts include interest rate, foreign exchange rate, equity, precious metals, commodity and credit contracts and any other instruments that pose similar risks.

"Determination Date" means the dates on which a member's Stock Requirement is recalculated due to the addition of new Activity-based Assets. The Determination Date shall be: (a) for lines of credit, the date of commitment; (b) for Derivative Contracts, the date of the FHLBI confirmation; (c) for standby letters of credit, the date of issuance; (d) for other Advances and other Credit Products, the date of disbursement; and (e) for Acquired Member Assets, the Settlement Date.

"Effective Date," when used with respect to termination of FHLBI membership, means those dates described in Section VII, and, when used with respect to the effective date of this Capital Plan, means the date selected by the Board of Directors pursuant to Section IX as the effective date of the Plan.

"Enterprise Risk Management Policy" means the policy, as approved by the Board of Directors, regarding the FHLBI's risk management program, practices and procedures established pursuant to regulations or other guidance promulgated by the Finance Agency, as such policy may be amended from time to time.

"Excess Stock" means any shares of Capital Stock held by a member (or its successor) in excess of the member's Stock Requirement.

“FHFA” or “Finance Agency” means the Federal Housing Finance Agency, or its predecessor, the Finance Board, or any successor thereto.

“FHLBI Management” means the President – Chief Executive Officer and the Chief Financial Officer, acting jointly, and such other FHLBI officer positions as the Board of Directors may designate from time to time.

“Financial Statements” means a member's annual regulatory Call Report, or similar annual regulatory filing for members that do not file Call Reports, provided that the FHLBI may, if such annual Call Reports or other regulatory filings are unavailable, or if the context otherwise requires, rely upon annual audited financial statements or upon quarterly Call Reports or similar quarterly regulatory filings.

“Former Member” means an institution for which membership in the FHLBI has been terminated but which continues to hold Capital Stock pursuant to the Capital Plan, and includes any successor to such institution that continues to hold Capital Stock that was issued to the acquired institution.

“GAAP” means generally accepted accounting principles in the United States as in effect from time to time.

“Mandatory Delivery Contract” or “MDC” means an Acquired Member Assets transaction in which a member is obligated to sell a specific dollar amount of mortgage loans with specific characteristics to the FHLBI at a specified purchase price on a specified Settlement Date.

“Market Risk Capital" means an amount of Permanent Capital required by the Capital Regulations to support the market risk to which the Bank is exposed.

“Membership Stock Requirement” means the amount of Class B Stock that a member is required to hold, calculated as a percentage of the member’s Total Mortgage Assets, as such percentage is established from time to time pursuant to Section V.

“Operational Risk Capital” means an amount of Permanent Capital required by the Capital Regulations to support the operational risk to which the FHLBI is exposed.

“Permanent Capital” means retained earnings under GAAP plus the amount paid in for Class B Stock.

“Recalculation Date” means: (a) on or about April 1 of each year for re-calculating a member's Total Mortgage Assets; (b) each Determination Date for re-calculating a member's Activity-based Stock Requirement due to the acquisition of Activity-based Assets; (c) the effective date of any adjustment or amendment to the Stock Requirement percentages under Section V.C; (d) the date of any recalculation performed by the FHLBI due to reductions in the member’s Activity-based Assets as a result of payments or changes in value; or (e) the date of any other recalculation provided for in this Plan.

“Record Date” means December 31 of the calendar year immediately preceding the election year.

“Redemption Cancellation Fee” means the $500 fee that may be imposed by the FHLBI on a member that cancels a redemption notice.

"Redemption Period" means the five-year period that begins (a) on the date the member's notice of request for redemption of Class B Stock is received by the FHLBI or (b) as set forth in Section VII, until the stock can be redeemed.

"Regulatory Capital Requirements" means the minimum amount of Permanent Capital and Total Capital that the FHLBI is required to maintain under the Bank Act and any related regulations, or any similar requirement established for the FHLBI by order, written agreement or other regulatory actions.

"Risk-based Capital Requirement" means an amount of Permanent Capital equal to the sum of the Credit Risk Capital, Market Risk Capital and Operational Risk Capital requirements.

"Settlement Date" means the date Acquired Member Assets are purchased by the FHLBI and proceeds are actually paid to or on behalf of the member.

"Stock Requirement" means the amount of Capital Stock the member is required to hold based upon the greater of its Membership Stock Requirement or its Activity-based Stock Requirement, as described in Section V.

"Subseries B-1 Stock" means that Subseries of Class B Stock that is issued to satisfy a member's Stock Requirement.

"Subseries B-2 Stock" means that Subseries of Class B Stock into which Subseries B-1 Stock will be converted if the stock becomes subject to a voluntary or automatic redemption request while the stock is still needed by a member to meet its Stock Requirement.

"Time Account" means an investment deposit account maintained by a member with the FHLBI.

"Total Assets," when used with respect to either the FHLBI or one of its members, means the entity's total assets as determined in accordance with the accounting principles or standards that are applicable to the entity.

"Total Capital" means the sum of Permanent Capital, the paid-in value of all Class A stock (if any), general loan loss reserves, and other instruments as may be identified in the Plan from time to time and accepted as components of Total Capital by the Finance Agency.

"Total Mortgage Assets" of the member means the aggregate unpaid principal balance of the member's "home mortgage loans" as defined in 12 C.F.R. § 1263.1 and more specifically means the following: (1) a loan, whether or not fully amortizing, or an interest in such a loan, which is secured by a mortgage, deed of trust, or other security agreement that creates a first lien on one of the following interests in the property: (i) one-to-four family property or multifamily property, in fee simple; (ii) a leasehold on one-to-four family property or multifamily property under a lease of not less than 99 years that is renewable, or under a lease having a period of not less than 50 years to run from the date the mortgage was executed; or (iii) combination business or farm property where at least 50 percent of the total appraised value of the combined property is attributable to the residential portion of the property or, in the case of any community financial institution, combination business or farm property, on which is located a permanent structure actually used as a residence (other than for temporary or seasonal housing), where the residence constitutes an integral part of the property; or (2) a security representing: (i) a right to receive a poriton of the cash flows from a pool of long-term loans, provided that, at the time of issuance of the security, all of the loans meet the requirements of item (1) of this definition; or (ii) an interest in other securities, all of which meet the requirements of item (1) of this definition.

"Withdrawal Cancellation Fee" means the $500 fee that may be imposed by the FHLBI on the member for canceling a notice of withdrawal from membership.

III. Capital Requirements

The FHLBI shall maintain its Regulatory Capital Requirements.

The Finance Agency has the authority to require the FHLBI to hold additional capital, which could require the FHLBI to amend this Capital Plan or the Enterprise Risk Management Policy from time to time.

IV. Class of Stock; Rights and Dividends

The Board of Directors of the FHLBI hereby confirms its approval of the issuance of a class of stock, to be known as "Class B Stock," consisting of Subseries B-1 and Subseries B-2, with the rights, privileges and preferences, and subject to the limitations, set forth below. The FHLBI shall issue no other classes or subseries of stock except by amendment to this Capital Plan and approval by the Finance Agency, and shall not issue stock other than in accordance with Finance Agency regulations in effect at the time the stock is to be issued. FHLBI stock may only be issued to and held by members (or their successors upon consolidation or merger, with respect to holding existing stock).

Capital Stock will be issued and held in book entry form only and shall be tradable only between the FHLBI, its members, and Former Members; provided, however, that stock may only be transferred between members as set forth in Section VI.

In accordance with 12 C.F.R. Part 1261 (as amended from time to time) and subject to Sections V and VII, each member (or successor by merger or consolidation that occurs after the Record Date) holding Capital Stock shall be entitled to vote in the election of directors based upon one vote for each share of Capital Stock required to be held by the member as of the Record Date, provided that the number of votes that any member may cast for any one directorship based upon the member's Capital Stock holdings shall not exceed the average number of shares of Capital Stock that were required to be held by all members located in that state as of the Record Date. For purposes of applying 12 C.F.R. Part 1261, the Capital Stock that a member was "required to hold" shall be the member's Stock Requirement as of the Record Date.

For purposes of this Section IV, a member (i) that has notified the FHLBI of its intent to withdraw from membership or (ii) whose membership is to be terminated by consolidation or merger as described in Section VII, shall continue to have voting rights with respect to its Stock Requirement, subject to the limitation described in the preceding paragraph, until the Effective Date of its membership termination. Thereafter, a Former Member that withdraws from membership after the Record Date will retain the right to vote in the first election occurring subsequent to the last Record Date on which it was a member. A Former Member that withdraws from membership prior to the Record Date but still holds Capital Stock to support outstanding obligations is not considered a member hereunder and has no voting rights with respect to such stock. An institution whose membership is terminated involuntarily under Section VII ceases to be a member as of the date on which the Board acts to terminate the membership, and the institution therefore has no voting rights with respect to its Capital Stock as of such date.

A. Class B Stock

1. Class B Stock shall have a par value of one hundred dollars ($100) and shall be issued, redeemed and repurchased only at such par value. Class B Stock shall be issued in an amount necessary to at least meet each member's Stock Requirement as described in Subsection 2 below and Section V, and may be issued in additional amounts as provided in Subsections C and D below.

2. Class B Stock shall consist of two subseries, B-1 and B-2. Subseries B-1 Stock will be the stock purchased by members as needed to meet their Stock Requirement. Subseries B-1 Stock will be converted to Subseries B-2 Stock if the member withdraws from membership, or if its membership is terminated, or if it files a notice to redeem stock that is needed to meet the member's Stock Requirement. Subseries B-1 Excess Stock, if any, will not be converted to Subseries B-2 Stock, as long as such stock remains Excess Stock.

3. Holders of Class B Stock shall be deemed the owners of the FHLBI's retained earnings, surplus, undivided profits and equity reserves, but shall have no right to receive any portion of those amounts, except through a declared dividend or distribution approved by the Board of Directors or upon the liquidation of the FHLBI.

4. Class B Stock may be redeemed upon five (5) years' prior written notice from the member in accordance with Section VI.B. Class B Excess Stock is also subject to repurchase by the FHLBI, in its discretion, whether or not requested by the member, in accordance with Section VI.C.

B. Dividends

1. The Board of Directors, in its discretion and subject to the provisions of this Section IV and Section XII.A, shall establish and declare the amount and type, whether in cash, stock, or a combination thereof, of the dividend, if any, to be paid on each class and subseries of Capital Stock on a quarterly basis or as otherwise determined by the Board of Directors. The dividend on the Subseries B-2 Stock shall be equal to eighty percent (80%) of the dividend that is declared by the Board of Directors on the Subseries B-1 Stock. The amount of dividends to be paid shall be based upon the average number of each subseries of shares held by the member during the quarter. Dividends are non-cumulative with respect to payment obligations.

2. The FHLBI shall not declare or pay any dividends on Capital Stock if it is not in compliance with any of its minimum capital requirements, or pay a dividend that would cause it to fail to meet any of its minimum capital requirements. The FHLBI shall not declare or pay a dividend if the par value of the Bank's Capital Stock is impaired or is projected to become impaired after paying such dividend. Dividends, if declared, will only be paid from current net earnings or from retained earnings, subject to Section XII.A.

C. Additional Offerings

The FHLBI is authorized to issue additional Capital Stock, at par value, to its members from time to time. Participation in such offerings shall be voluntary on the part of the members, on terms and conditions to be determined by the Board of Directors, but such offerings shall not discriminate in favor or against any member.

D. Liquidation, Consolidation or Merger of the FHLBI

1. Subject to the Finance Agency's authority to prescribe rules, regulations or orders governing the liquidation of a Federal Home Loan Bank, upon the liquidation of the FHLBI, following the retirement of all outstanding liabilities of the FHLBI to its creditors, all shares of Class B Stock are to be repurchased at par value, provided that if sufficient funds are not available to accomplish the repurchase in full of the Class B Stock at par value, then such repurchase shall occur on a pro rata basis among all holders of Class B Stock. Following the repurchase in full of all Class B Stock, any remaining assets will be distributed to the holders of Class B Stock in the proportion that each stockholder's Class B Stock bears to the total Class B Stock outstanding immediately prior to the initial repurchase of Class B Stock pursuant to such liquidation.

2. In the event of the merger or consolidation of the FHLBI into another FHLBank, the FHLBI members shall immediately become members of the successor FHLBank, and their existing Capital Stock shall be converted to equivalent stock in the successor FHLBank or as otherwise provided in any plan of merger between the FHLBanks or in any lawful order of the Finance Agency.

3. In the event of the merger or consolidation of another FHLBank into the FHLBI, members of the merged FHLBank shall immediately become members of the FHLBI, and the outstanding stock of the merged FHLBank shall be converted to equivalent Capital Stock in the FHLBI or as otherwise provided in any plan of merger between the FHLBanks or in any lawful order of the Finance Agency.

V. Investment by Members

All members of the FHLBI or institutions applying for membership shall be required to maintain a minimum investment in the FHLBI by purchasing shares of its Capital Stock as follows.

A. Stock Requirement

1. Each member or institution applying for membership, as a condition of initial or continuing membership, shall purchase and hold shares of Subseries B-1 Stock in an amount equal to its Stock Requirement. The initial purchase of stock must occur in a single transaction before the institution's membership will be effective. Thereafter, the Stock Requirement shall be the greater of (i) the member's Membership Stock Requirement, subject to the minimum and maximum amounts established pursuant to Subsection 2 below or (ii) the member's Activity-based Stock Requirement. Where a member has been placed into receivership, conservatorship or other legal custodian and the FHLBI's Board of Directors has terminated such entity's membership, the entity's Stock Requirement will be equal to the entity's Activity-based Stock Requirement.

2. The Membership Stock Requirement percentage shall be within a range of 0.75% to 1.25% of the member's Total Mortgage Assets. The Board of Directors may adjust the Membership Stock Requirement from time to time as more fully described in Subsections B and C below. Stock required to be purchased based upon a member's Total Mortgage Assets shall not be less than $1,000 par value (10 shares) and shall not exceed $35,000,000 par value (350,000 shares).

3. The ranges for the Activity-based Stock Requirement for each type of Activity-based Asset are as follows:

Type	Range
Credit Products:	
Advances	1.0% - 6.0%
Lines of Credit	1.0% - 6.0%
Standby Letters of Credit	0.1% - 6.0%
Derivative Contracts	1.0% - 6.0%
Acquired Member Assets	0.0% - 6.0%

The specific Activity-based Stock Requirement percentage for each type of Activity-based Asset shall be established by the Board of Directors by resolution to take effect on the Plan's Effective Date, pursuant to Section IX.A. The Board, in its discretion, may apply any percentages that it revises pursuant to the preceding sentence and Section IX.A retroactively or prospectively to any Activity-based Assets outstanding as of the Effective Date, and may apply the revised percentages differently to different products within each category of the Bank's outstanding Activity-based Assets. Nothing in this paragraph shall be construed to limit the Board's authority to adjust the applicable percentages for the Activity-based Stock Requirement before the Effective Date (within the ranges then in effect). The FHLBI shall provide prompt notice to the Finance Agency of the percentages established or revised pursuant to this Subsection A.3, Subsection C.2 below and Section IX.A. Following the Effective Date, such percentages may be changed from time to time as described in Subsection C below.

4. The member's Stock Requirement will be recalculated from time to time in accordance with the procedures set forth in Subsections B and C below. Any additional stock purchases necessary to meet a new Stock Requirement shall be made from the member by wire transfer or by debiting the member's CMS Account or the member's Time Account, as designated by the member.

5. If a member fails on any Recalculation Date to comply with a recalculated Stock Requirement, the member's access to products and services of the FHLBI shall be suspended until such requirement is met, and any failure to comply within ten (10) Business Days of the Recalculation Date may result in involuntary termination of membership.

6. The FHLBI reserves the right to recalculate a member's Stock Requirement at any time using the member's most current Financial Statements and the FHLBI's current records at the time of such recalculation.

7. As of the Effective Date, a member that has filed a notice of withdrawal of FHLBI membership, or whose membership has been otherwise terminated in accordance with Section VII, shall not (i) be required to meet any increases or (ii) benefit from any decreases based upon changes in the Total Mortgage Asset percentages or the Activity-based Stock Requirement percentages while the notice of withdrawal is pending or subsequent to such membership termination, unless during such notice period a withdrawing member enters into new Activity-based Assets, in which case changes in the Activity-based Stock Requirement percentages will be applied to the member's outstanding and new Activity-based Assets (or if the changes were determined to apply prospectively only, then only to new Activity-based Assets) upon or following the effective date of such adjustment or amendment. The Membership Stock Requirement for any such members shall be the amount of Class B Stock required as of the date of the notice of withdrawal or the date of membership termination; therefore, no calculation or

recalculation of the Membership Stock Requirement shall be made with respect to any institution that has filed a notice of withdrawal of FHLBI membership, or whose FHLBI membership terminates, on or before any subsequent Recalculation Date.

B. Stock Requirement Calculation

1. Except as provided in Subsection A.7 above, a member's Total Mortgage Assets will be determined on or about April 1 of each year, based upon the member's Financial Statements as of December 31 of the prior year.

2. A member that enters into a new Activity-based Asset must comply with any associated requirement to purchase additional Capital Stock at the time the new Activity-based Asset is entered into and for as long as the Activity-based Asset is outstanding.

3. Except as provided in Subsection A.7 above, a member's Stock Requirement will be recalculated on each Recalculation Date.

C. Adjustment or Amendments to Stock Requirement Percentages

1. The Board of Directors has a continuing obligation to review and adjust the Stock Requirement, as necessary, to maintain the FHLBI's compliance with its minimum capital requirements.

2. The Board of Directors may adjust the percentages used in determining the Membership Stock Requirement or the Activity-based Stock Requirement from time to time within the ranges set forth in Subsection A above. In its discretion, the Board may apply percentage adjustments only to Activity-based Assets having certain terms, provisions or characteristics. Adjustments to Activity-based Stock Requirements made pursuant to this Subsection C.2 may be applied prospectively, and may also be applied retroactively to Activity-based Assets acquired before the effective date of the adjustments. The FHLBI shall provide prompt notice to the Finance Agency of any adjustments to the percentages used in determining the Stock Requirement made pursuant to this Subsection C.2. The Board of Directors may adjust such percentages outside the ranges set forth in Subsection A by amendment of the Capital Plan and with prior approval from the Finance Agency, in accordance with the Act and Finance Agency regulations, as amended from time to time.

3. Except as provided below, any adjustments or Finance Agency-approved amendments to the Stock Requirement percentages after the Effective Date shall take effect not less than fifteen (15) days after notice to the members, which effective date shall be a Recalculation Date, and (for purposes of the Membership Stock Requirement (except as provided in Subsection A.7 above)) shall be based upon a member's current Total Mortgage Assets as reflected in its most recent Financial Statements and (for purposes of the Activity-based Stock Requirement) the amounts described in the definition of Activity-based Assets. Notwithstanding the foregoing, adjustments to the Stock Requirement percentages, may be given immediate effect if the Board of Directors determines that failure to give immediate effect could reduce the FHLBI's Capital Ratio below the minimum Regulatory Capital Requirements established by the Finance Agency. The FHLBI shall provide prompt notice to members of any adjustment that is given immediate effect, and the effective date of each such adjustment shall be a Recalculation Date. The FHLBI shall provide prompt notice to the Finance Agency of any adjustments to the percentages used in determining the Stock Requirement made pursuant to this Subsection C.3.

VI. Transfer, Redemption or Repurchase of Stock

A. Transfer to Other Members

With the written approval of the FHLBI, which may be withheld in its sole discretion, a member may transfer Excess Stock to another FHLBI member. Any such transfers shall be at par value and shall be effective upon being recorded on the appropriate books and records of the FHLBI. All transfers shall be undertaken in accordance with 12 C.F.R. § 1277.25 (or successor Finance Agency regulations). The shares subject to the transfer shall be identified by the member in the written notice requesting the transfer. Transferred shares that were subject to a prior notice of redemption shall have such redemption notice automatically cancelled upon the transfer, but no cancellation fee will be charged.

B. Redemption of Stock by Member

1. A member may have its Class B Stock redeemed by providing five (5) years' prior written notice of redemption to the FHLBI. The Redemption Period will commence on the date of the FHLBI's receipt of the written notice. The redemption notice shall identify by date of acquisition and quantity the particular shares of Class B Stock to be redeemed. If the redemption notice fails to identify the particular shares to be redeemed, the member shall be deemed to have requested redemption of the most recently acquired shares that are not already subject to a pending redemption request. At the end of the Redemption Period, only Class B Stock that has been held for at least five years and that is then Excess Stock can be used to fill the redemption request. The conversion of Subseries B-1 Stock to Subseries B-2 Stock or the reverse does not change the acquisition date of the Class B Stock. A member shall not have more than one notice of redemption outstanding at one time for the same shares of Class B Stock.

2. Class B Stock that is part of a member's Stock Requirement at the time a redemption request is filed with respect to such stock shall be immediately converted from Subseries B-1 to Subseries B-2, and shall receive the lower dividend, until the stock is redeemed, the redemption notice is cancelled or the stock becomes Excess Stock. If during the Redemption Period the Subseries B-2 Stock becomes Excess Stock, the Subseries B-2 Stock will be re-converted to Subseries B-1 Stock at the next Recalculation Date determined under Section V.B for the remainder of the Redemption Period or until such stock is again needed by the member to meet its Stock Requirement. If during the Redemption Period, such stock becomes needed by the member to meet its Stock Requirement, such stock shall be re-converted to Subseries B-2 Stock at the next Recalculation Date determined under Section V.B. This pattern of conversion between Subseries B-1 Stock and Subseries B-2 Stock shall continue during the Redemption Period to the extent that the status of the Class B Stock that is subject to the notice of redemption changes (between Excess Stock and stock that is needed by the member to satisfy its Stock Requirement).

3. Any Capital Stock that is redeemed will be retired and will no longer be deemed outstanding stock.

4. A member may cancel a notice of redemption by notifying the FHLBI in writing. Cancellations shall be applied first against stock needed to meet a member's Stock Requirement and then against Excess Stock. The redemption cancellation notice shall identify, as to both the Stock Requirement and Excess Stock (if any), the shares of stock to which the notice applies. Further, a redemption notice shall be automatically cancelled if the FHLBI is unable to redeem the stock within five (5) Business Days of the end of the Redemption Period because the stock is still needed to meet the member's Stock Requirement. The FHLBI may impose a Redemption

Cancellation Fee in consideration for canceling a redemption notice, whether the member cancels the notice or the notice is automatically cancelled as provided above.

5. Redemptions conducted pursuant to this Subsection B shall be subject in all respects to Subsection D below.

C. Repurchase of Stock

1. The FHLBI may, at its sole discretion, upon not less than fifteen (15) days' notice to affected shareholders, repurchase any outstanding Capital Stock that is Excess Stock. The Board of Directors shall determine in its discretion the amount of Excess Stock to be repurchased. Notices to shareholders pursuant to this Subsection C.1 shall provide that (i) the shareholder may identify shares of the Excess Stock to be repurchased by date of acquisition, and (ii) if the shareholder does not identify particular shares to be repurchased by the date specified in the notice, the FHLBI shall first repurchase the most recently acquired shares of the shareholder's Excess Stock. A member's submission of a notice of intent to voluntarily withdraw from membership, or a termination of its membership in any other manner, shall not, in and of itself, cause any stock to be deemed Excess Stock.

2. If a member has one or more redemption requests outstanding as of the date of repurchase of shares of Capital Stock under redemption and has not identified specific shares to be repurchased, the FHLBI shall first repurchase the most recently acquired shares of Capital Stock that are Excess Stock and are not subject to a redemption request, followed by Excess Stock that is subject to a redemption request and has been outstanding the shortest period of time, and then (to the extent necessary) by repurchasing shares of Excess Stock that are subject to a redemption request that has been outstanding for the next shortest period of time, and continuing in that order to the extent necessary until the member no longer has any Excess Stock, or the FHLBI has repurchased all of the member's Excess Stock that the FHLBI intended to repurchase.

3. The Board of Directors authorizes FHLBI Management, in its sole discretion, to grant or deny, in whole or in part, a written request to repurchase Excess Stock submitted by an individual member or Former Member.

4. Repurchases conducted pursuant to this Subsection C shall be subject in all respects to Subsection D below.

5. All repurchased stock will be retired and will no longer be deemed outstanding stock.

D. Additional Limitations to Redemption or Repurchase of Stock

1. The FHLBI may not redeem or repurchase any stock if, following the redemption or repurchase, the FHLBI would fail to meet any of its minimum capital requirements or the member would fail to maintain its Stock Requirement. If at any time more than one member has outstanding a redemption notice pursuant to Section VI.B, or a redemption of Capital Stock in connection with a termination of membership in accordance with Section VII as to which the applicable Redemption Period has expired, and if the redemption of all of the shares of Capital Stock subject to such redemption notices or terminations of membership would cause the FHLBI to fail to be in compliance with any of its minimum capital requirements, then the FHLBI shall

fulfill such redemptions as it is able to do so from time to time, beginning with such redemptions as to which the Redemption Period expired on the earliest date and fulfilling such redemptions relating to that date on a pro rata basis from time to time until fully satisfied, and then fulfilling such redemptions as to which the Redemption Period expired on the next earliest date in the same manner, and continuing in that order until all of such redemptions as to which the Redemption Period has expired have been fulfilled.

2. The FHLBI may not redeem or repurchase any Capital Stock without the prior written approval of the Finance Agency if the Finance Agency or the Board of Directors has determined that the FHLBI has incurred or is likely to incur losses that result in or are likely to result in charges against the capital of the FHLBI. This prohibition shall apply even if the FHLBI is in compliance with its minimum capital requirements, and shall remain in effect for as long as the FHLBI continues to incur (or remains likely to incur) such charges or until the Finance Agency or the Board determines that such charges are not expected to continue.

3. The FHLBI may retain the proceeds of redeemed or repurchased Capital Stock as additional collateral if the FHLBI reasonably determines that there is an existing or anticipated collateral deficiency related to any obligation owed by the member to the FHLBI and the member has failed to deliver additional collateral to resolve such deficiency to the FHLBI's satisfaction, until all such obligations have been satisfied or the existing or anticipated deficiency is resolved to the FHLBI's satisfaction.

4. The FHLBI reserves the right under 12 C.F.R. § 1277.27(b) (or successor Finance Agency regulation) and this Capital Plan to suspend all redemptions of Capital Stock if the FHLBI reasonably believes that continued redemptions would cause the FHLBI to fail to meet its minimum capital requirements, would prevent the FHLBI from maintaining adequate capital against potential risk that may not be adequately reflected in its minimum capital requirements, or would otherwise prevent the FHLBI from operating in a safe and sound manner. The FHLBI will provide the Finance Agency with notice of such suspension within two Business Days. The FHLBI acknowledges that the Finance Agency may require the FHLBI to re-institute redemptions of Capital Stock. During any period in which the FHLBI has suspended redemptions of Capital Stock, the FHLBI shall not repurchase any Capital Stock without the written permission of the Finance Agency.

5. With respect to stock redemptions and repurchases described in Subsections B and C above: (i) the FHLBI shall pay to the member the par value of each redeemed or repurchased share, and such amount will be credited to the member’s CMS Account or the member’s Time Account, as designated by the member, on the date of redemption or repurchase; and (ii) the FHLBI shall pay the appropriate amount to a Former Member by wire transfer or check.

VII. <u>Termination of or Withdrawal from Membership</u>

Any member may voluntarily withdraw from membership in the FHLBI upon written notice to the FHLBI. Further, membership may be terminated by operation of law as the result of a consolidation or merger of a member into a non-member that does not wish to be, or is not eligible to be, a member of the FHLBI, or into a member of another FHLBank or into another member of the FHLBI. The FHLBI’s Board of Directors may, in its sole discretion at any time, take action to unilaterally terminate the membership of any member (involuntarily) that (i) fails to comply with any requirement of the Act, Finance Agency regulations or this Plan, (ii) becomes insolvent or is otherwise subject to the appointment of a conservator, receiver or other custodian under federal or state law, or (iii) would jeopardize the safety or soundness of the FHLBI if it were to remain a member. The effect of any termination of membership on a member's Capital Stock ownership shall be as follows:

A. Effective Date of Termination

1. The Effective Date of termination for a voluntary withdrawal by a member shall be on the last day of the latest Redemption Period for the Capital Stock held by the member as a condition of membership, as of the date the FHLBI received the written notice of withdrawal. The Redemption Period for all Capital Stock held by the member and not already subject to a notice of redemption will commence on the date the FHLBI receives the member's written notice of withdrawal.

2. The Effective Date for an involuntary termination shall be the date the Board of Directors acts to terminate the membership, which shall commence the Redemption Period for all Capital Stock held by the institution on that date and not already subject to a notice of redemption.

3. The Effective Date for a termination of membership resulting from the consolidation or merger of a member into a non-member that is not seeking membership in the FHLBI, or into a member of another FHLBank, shall be the date of cancellation of the member's charter, which shall commence the Redemption Period for the member's Capital Stock held by the member (or its successor) as of such cancellation date and not already subject to a notice of redemption. On the date of such termination of membership, the Capital Stock held by the disappearing member will be transferred on the books of the FHLBI into the name of the surviving institution.

4. The Effective Date for a termination of membership resulting from the consolidation or merger of a member into another member of the FHLBI shall be the date of the cancellation of the disappearing member's charter. At such time, the Capital Stock held by the disappearing member will be transferred on the books of the FHLBI into the name of the surviving member. The cancellation of the disappearing member's charter shall not commence the Redemption Period for the Capital Stock previously held by the disappearing member. The Redemption Period for such Capital Stock shall commence only upon the filing of an appropriate redemption notice by the surviving member or otherwise in accordance with the terms of this Capital Plan.

5. The Effective Date for a termination of membership resulting from the relocation of a member's principal place of business shall be the date on which the transfer of membership under the applicable Finance Agency regulation becomes effective, which shall commence the Redemption Period for the member's Capital Stock held on that date and not already subject to a notice of redemption.

B. Member Rights During Redemption Period

1. All holders of Capital Stock shall be entitled to receive all declared dividends on such stock during the Redemption Period.

2. A member's submission of a notice of intent to voluntarily withdraw from membership or its termination of membership in any other manner shall not, in and of itself, cause any Capital Stock to be deemed Excess Stock.

3. Except as set forth in Section VI.D, and unless the withdrawing or terminated member must continue to comply with a Stock Requirement related to its Activity-based Stock Requirement, the FHLBI shall redeem the member's Capital Stock upon expiration of the Redemption Period. In accordance with 12 C.F.R. § 1263.29 (or successor Finance Agency regulation), all indebtedness or other obligations of the member to the FHLBI (including, without limitation, prepayment fees and grants) must be repaid or otherwise settled before the FHLBI shall redeem or repurchase the member's Capital Stock (or release the proceeds of any redeemed or repurchased Capital Stock) that is required to support the indebtedness or other obligation.

4. A member that files a notice to voluntarily withdraw from membership may continue to enter into Activity-based Assets with the FHLBI, subject to the following provisions:

   a. Without the consent of the FHLBI, no such transaction may mature or otherwise terminate after the Effective Date of the member's termination.

   b. A member's Class B Stock that is part of the member's Stock Requirement at the time the notice of withdrawal is filed shall be immediately converted from Subseries B-1 Stock to Subseries B-2 Stock, and (pursuant to Section IV.B) shall receive the lower dividend, until the stock is redeemed or the withdrawal notice is canceled. A member's stock that is or becomes Excess Stock during the Redemption Period will continue to be Subseries B-1 Stock or will re-convert to Subseries B-1 Stock at the next Recalculation Date determined under Section V.B.

   c. On or after the date of the notice of withdrawal, in the event a withdrawing member engages in additional Activity-based Assets that require the member to purchase additional Capital Stock, such stock shall be deemed to be automatically subject to a notice of redemption with the Redemption Periods to commence on the dates of purchases of the stock. While a withdrawal notice is pending, a withdrawing member shall not be required to purchase additional Capital Stock based upon changes in its Membership Stock Requirement. A member shall have no further right to enter into Activity-based Assets with the FHLBI on or after the date that membership terminates in accordance with 12 C.F.R. §1263.26(b) (or successor Finance Agency regulation), notwithstanding that the member may have additional Capital Stock that was purchased after the date of the notice of withdrawal and for which the Redemption Period has not ended.

   d. Except as authorized by the preceding Subsection (c), a withdrawing member shall continue to maintain Capital Stock sufficient to meet its Stock Requirement in accordance with the provisions of this Capital Plan until the date on which its membership terminates. Prior to such termination date, any Capital Stock that is not required to meet the member's Stock Requirement shall be Excess Stock subject to repurchase. On or after such termination date, any Capital Stock that is not required to meet the member's Stock Requirement related to its Activity-based Stock Requirement shall be Excess Stock subject to repurchase.

5. A member that is involuntarily terminated by the Board of Directors may not enter into any further Activity-based Assets, but shall make arrangements for an orderly liquidation of all outstanding indebtedness or other obligations of the member to the FHLBI (including, without limitation, prepayment fees and grants).

   a. A member's Class B Stock that is part of the member's Stock Requirement at the time of the involuntary termination shall be immediately converted from Subseries B-1 Stock to Subseries B-2 Stock and (pursuant to Section IV.B) shall receive the lower dividend until the stock is redeemed. A member's stock that is or becomes Excess Stock during the Redemption

Period will continue to be Subseries B-1 Stock or will convert back to Subseries B-1 stock at the next Recalculation Date.

b. No Capital Stock that is part of a member's Stock Requirement related to its Activity-based Stock Requirement on the date of such involuntary termination shall be redeemed or repurchased by the FHLBI until the indebtedness or other obligations are repaid or otherwise settled.

c. Subject to Section VI.D, Excess Stock held by such member may be repurchased, at the sole discretion of FHLBI Management, before such indebtedness or other obligations are repaid or otherwise settled.

6. A member that is terminated due to a consolidation or merger with a non-member or with a member of another FHLBank shall not enter into any further Activity-based Assets, but shall make arrangements for an orderly liquidation of all of the member's outstanding indebtedness or other obligations to the FHLBI (including, without limitation, prepayment fees and grants).

a. If the non-member institution into which the member has been consolidated or merged has given notice to the FHLBI of its intention to apply for FHLBI membership, liquidation shall not be required unless the non-member abandons the application process or the FHLBI denies the application for membership.

b. A member's Class B Stock that is part of the member's Stock Requirement at the time of the termination shall be immediately converted from Subseries B-1 Stock to Subseries B-2 Stock and (pursuant to Section IV.B) shall receive the lower dividend until the stock is redeemed. A member's stock that is or becomes Excess Stock during the Redemption Period will continue to be Subseries B-1 Stock or will convert back to Subseries B-1 Stock at the next Recalculation Date.

c. No Capital Stock that is part of a member's Stock Requirement related to its Activity-based Stock Requirement on the effective date of such consolidation or merger, whether held by the member or its successor, shall be redeemed or repurchased until the indebtedness or other obligations are repaid or otherwise settled.

d. Subject to Section VI.D, Excess Stock held by such member may be repurchased, at the sole discretion of FHLBI Management, before the outstanding indebtedness or other obligations are repaid or otherwise settled.

7. A member that is terminated due to a relocation of its principal place of business to another FHLBank district shall not enter into any further Activity-based Assets, but shall make arrangements for an orderly liquidation of all of the member's outstanding indebtedness or other obligations to the FHLBI (including, without limitation, prepayment fees and grants).

a. A member's Class B stock that is part of the member's Stock Requirement at the time of the termination shall be immediately converted from Subseries B-1 Stock to Subseries B-2 Stock and (pursuant to Section IV.B) shall receive the lower dividend until the stock is redeemed. A member's stock that is or becomes Excess Stock during the Redemption Period will continue to be Subseries B-1 Stock or will convert back to Subseries B-1 Stock at the next Recalculation Date.

b. No Capital Stock that is part of a member's Stock Requirement related to its Activity-based Stock Requirement on the effective date of such relocation shall be redeemed or repurchased until the indebtedness or other obligations are repaid or otherwise settled.

c. Subject to Section VI.D, Excess Stock held by such member may be repurchased at the sole discretion of FHLBI Management before such indebtedness or other obligations are repaid or otherwise settled.

8. All prepayments of obligations maturing after the Effective Date of termination of membership shall be subject to any applicable prepayment fees normally imposed.

C. Cancellation of Withdrawal Notice

1. A member that has filed a notice of voluntary membership withdrawal may cancel that notice at any time prior to the Effective Date of termination by a further written notice to the FHLBI. The FHLBI may impose a Withdrawal Cancellation Fee on the member in consideration for such cancellation. A member's Subseries B-2 Stock will then immediately be re-converted to Subseries B-1 Stock.

2. A member that cancels a notice of voluntary membership withdrawal shall also be required to immediately purchase Capital Stock as needed to meet the member's then current minimum Stock Requirement, including any additional stock required due to amendments or adjustments made by the Board of Directors pursuant to Section V.C that occurred during the period while the member's notice of withdrawal was pending.

D. Readmission to Membership

An institution that has withdrawn from membership or otherwise has had its membership terminated and that has divested all of its shares of Capital Stock may not be readmitted to membership in any FHLBank or acquire any Capital Stock of any FHLBank for a period of five (5) years from the date membership was terminated and all of the Capital Stock was redeemed or repurchased.

VIII. Adoption of Changes to Capital Plan

The Board of Directors shall review the Capital Plan at least annually. The Board of Directors may, from time to time, consider and approve amendments to this Capital Plan. This consideration and approval includes but is not limited to the issuance of subordinated debt as authorized by Section 11 of the Act (12 U.S.C. § 1431), as amended from time to time, provided that the Finance Agency has determined that subordinated debt can be counted toward the FHLBI's Total Capital. Except as provided in Section XIII.C, all amendments must be submitted to and approved by the Finance Agency before such amendments will be effective. After receipt of approval, such amendments will be effective fifteen (15) days after the mailing or electronic posting of notice to members, unless another date is specified in such notice.

IX. Transition Provisions

The Effective Date of this amended and restated Capital Plan shall be established by a Board of Directors resolution and shall occur within sixty (60) days after the FHLBI's receipt of the Finance Agency's approval of the amended and restated Plan. The FHLBI has made a good faith determination that it will be able to implement this Capital Plan as submitted to the Finance Agency and that it will be in full compliance with the

Risk-based Capital Requirement and Total Capital requirement set forth in the Capital Regulations as of the Effective Date. The following actions are to be taken in order to implement certain changes to the Capital Plan.

A. Activity-based Stock Requirement

Not less than thirty (30) days prior to the Effective Date of the amended Capital Plan, the Board of Directors, by resolution, shall establish the percentages used in determining the Activity-based Stock Requirement for each type of Activity-based Asset within the ranges set forth in Section V.A.3, with such percentages taking effect on the Effective Date. Thereafter, such percentages may be adjusted pursuant to Section V.C. The FHLBI shall provide notice of such percentages to shareholders not less than fifteen (15) days prior to the Effective Date.

B. Membership Stock Requirement

Not less than thirty (30) days prior to the Effective Date of the amended Capital Plan, the Board of Directors, by resolution, shall confirm the percentage then used in determining the Membership Stock Requirement, and such percentage shall remain on the Effective Date. Thereafter, such percentages may be adjusted pursuant to Section V.C. The FHLBI shall provide notice of such percentage to shareholders not less than fifteen (15) days prior to the Effective Date. The Effective Date shall not be a Recalculation Date with respect to shareholders' Membership Stock Requirements.

X. Retained Earnings Enhancement Implementation and Definitions.

A. Implementation

The provisions of sections X through XIII shall become effective upon, and only upon, the occurrence of the Interim Capital Plan Amendment Implementation Date. Until the Restriction Termination Date, in the event of any conflict between sections X through XIII and the remainder of this Capital Plan, the applicable terms of sections X through XIII shall govern, and shall be interpreted in a manner such that the restrictions set forth therein are supplementary to, and not in lieu of, the requirements of the remainder of this Capital Plan.

B. Definitions applicable to Sections X through XIII of this Capital Plan.

As used in these sections X through XIII, the following capitalized terms shall have the following meanings. Other capitalized terms used but not defined in these sections X through XIII shall have the meanings set forth in section II of this Capital Plan.

"Act" means the Federal Home Loan Bank Act, as amended as of the Effective Date.

"Adjustment to Prior Net Income" means either an increase, or a decrease, to a prior calendar quarter's Quarterly Net Income subsequent to the date on which any allocation to Restricted Retained Earnings for such calendar quarter was made.

"Agreement" means the Joint Capital Enhancement Agreement adopted by the FHLBanks on the Effective Date and amended on the date on which the FHFA has approved the Retained Earnings Capital Plan Amendments for all of the FHLBanks that have issued capital stock pursuant to a capital plan as of the Effective Date.

"Allocation Termination Date" means the date the FHLBI's obligation to make allocations to the Restricted Retained Earnings account is terminated permanently. That date is determined pursuant to section XIII of this Capital Plan.

"Automatic Termination Event" means (i) a change in the Act, or another applicable statute, occurring subsequent to the Effective Date, that will have the effect of creating a new, or higher, assessment or taxation on net income or capital of the FHLBanks, or (ii) a change in the Act, another applicable statute, or the Regulations, occurring subsequent to the Effective Date, that will result in a higher mandatory allocation of an FHLBank's Quarterly Net Income to any Retained Earnings account than the annual amount, or total amount, specified in an FHLBank's capital plan as in effect immediately prior to the Automatic Termination Event.

"Automatic Termination Event Declaration Date" means the date specified in section XIII.A.1 or XIII.A.2 of this Capital Plan.

"Declaration of Automatic Termination" means a signed statement, executed by officers authorized to sign on behalf of each FHLBank that is a signatory to the Agreement, in which at least 2/3 of the then existing FHLBanks declare their concurrence that a specific statutory or regulatory change meets the definition of an Automatic Termination Event.

"Dividend" means a distribution of cash, other property, or stock to a Stockholder with respect to its holdings of Capital Stock.

"Dividend Restriction Period" means any calendar quarter: (i) that includes the REFCORP Termination Date, or occurs subsequent to the REFCORP Termination Date; (ii) that occurs prior to an Allocation Termination Date; and (iii) during which the amount of the FHLBI's Restricted Retained Earnings is less than the amount of the FHLBI's RREM. If the amount of the FHLBI's Restricted Retained Earnings is at least equal to the amount of the FHLBI's RREM, and subsequently the FHLBI's Restricted Retained Earnings becomes less than its RREM, the FHLBI shall be deemed to be in a Dividend Restriction Period (unless an Allocation Termination Date has occurred).

"Effective Date" means February 28, 2011.

"FHFA" means the Federal Housing Finance Agency, or any successor thereto.

"FHLBank" means a Federal Home Loan Bank chartered under the Act.

"FHLBI's Total Consolidated Obligations" means the daily average carrying value for the calendar quarter, excluding the impact of fair value adjustments (i.e., fair value option and hedging adjustments), of the FHLBI's portion of outstanding System Consolidated Obligations for which it is the primary obligor.

"GAAP" means accounting principles generally accepted in the United States as in effect from time to time.

"Interim Capital Plan Amendment Implementation Date" means 31 days after the date by which the FHFA has approved a capital plan amendment substantially the same as the Retained Earnings Capital Plan Amendment for all of the FHLBanks that have issued capital stock pursuant to a capital plan as of the Effective Date.

“Net Loss” means that the Quarterly Net Income of the FHLBI is negative, or that the annual net income of the FHLBI calculated on the same basis is negative.

“Quarterly Net Income” means the amount of net income of an FHLBank for a calendar quarter calculated in accordance with GAAP, after deducting the FHLBank’s required contributions for that quarter to the Affordable Housing Program under section 10(j) of the Act, as reported in the FHLBank’s quarterly and annual financial statements filed with the Securities and Exchange Commission.

“REFCORP Termination Date” means the last day of the calendar quarter in which the FHLBanks’ final regular payments are made on obligations to REFCORP in accordance with Section 997.5 of the Regulations and section 21B(f) of the Act.

“Regular Allocation Amount” means the result of (i) 20 percent of Quarterly Net Income; plus (ii) 20 percent of a positive Adjustment to Prior Net Income for any prior calendar quarter that includes the REFCORP Termination Date, or occurred subsequent to the REFCORP Termination Date, to the extent such adjustment has not yet been made in the current calendar quarter; minus (iii) 20 percent of the absolute value of a negative Adjustment to Prior Net Income for any prior calendar quarter that includes the REFCORP Termination Date, or occurred subsequent to the REFCORP Termination Date, to the extent such adjustment has not yet been made in the current calendar quarter.

“Regulations” mean: (i) the rules and regulations of the Federal Housing Finance Board (except to the extent that they may be modified, terminated, set aside or superseded by the Director of the FHFA) in effect on the Effective Date; (ii) the rules and regulations of the FHFA, as amended from time to time.

“Restricted Retained Earnings” means the cumulative amount of Quarterly Net Income and Adjustments to Prior Net Income allocated to the FHLBI’s Retained Earnings account restricted pursuant to the Retained Earnings Capital Plan Amendment, and does not include amounts retained in: (i) any accounts in existence at the FHLBI on the Effective Date; or (ii) any other Retained Earnings accounts subject to restrictions that are not part of the terms of the Retained Earnings Capital Plan Amendment.

“Restricted Retained Earnings Minimum” (“RREM”) means a level of Restricted Retained Earnings calculated as of the last day of each calendar quarter equal to one percent of the FHLBI’s Total Consolidated Obligations.

“Restriction Termination Date” means the date the restriction on the FHLBI paying Dividends out of the Restricted Retained Earnings account, or otherwise reallocating funds from the Restricted Retained Earnings account, is terminated permanently. That date is determined pursuant to section XIII of this Capital Plan.

“Retained Earnings” means the retained earnings of an FHLBank calculated pursuant to GAAP.

“Retained Earnings Capital Plan Amendment” means the amendment to this Capital Plan, made a part thereof, adopted effective on the Interim Capital Plan Amendment Implementation Date adding sections X through XIII to this Capital Plan.

“Special Allocation Amount” means the result of: (i) 50 percent of Quarterly Net Income; plus (ii) 50 percent of a positive Adjustment to Prior Net Income for any prior calendar quarter that includes the REFCORP Termination Date, or occurred subsequent to the REFCORP Termination Date, to the extent such adjustment has not yet been made in the current calendar quarter; minus (iii) 50 percent of the absolute value of a negative Adjustment to Prior Net Income for any prior calendar quarter that includes the REFCORP Termination Date, or occurred subsequent to the REFCORP Termination Date, to the extent such adjustment has not yet been made by the current calendar quarter.

"Stockholder" means: (i) an institution that has been approved for membership in the FHLBI, and has purchased Capital Stock in accordance with the Regulations; (ii) a former member of the FHLBI that continues to own Capital Stock; or (iii) a successor to an entity that was a member of the FHLBI that continues to own Capital Stock.

"System Consolidated Obligation" means any bond, debenture, or note authorized under the Regulations to be issued jointly by the FHLBanks pursuant to Section 11(a) of the Act, as amended, or any bond or note previously issued by the Federal Housing Finance Board on behalf of all FHLBanks pursuant to Section 11(c) of the Act, on which the FHLBanks are jointly and severally liable, or any other instrument issued through the Office of Finance, or any successor thereto, under the Act, that is a joint and several liability of all the FHLBanks.

"Total Capital" means Retained Earnings, the amount paid-in for Class B Stock, the amount of any general allowance for losses, and the amount of other instruments that the FHFA has determined to be available to absorb losses incurred by the FHLBI.

XI. Establishment of Restricted Retained Earnings

A. Segregation of Account.

No later than the REFCORP Termination Date, the FHLBI shall establish an account in its official books and records in which to allocate its Restricted Retained Earnings, with such account being segregated on its books and records from the FHLBI's Retained Earnings that are not Restricted Retained Earnings for purposes of tracking the accumulation of Restricted Retained Earnings and enforcing the restrictions on the use of the Restricted Retained Earnings imposed in the Retained Earnings Capital Plan Amendment.

B. Funding of Account.

1. Date on which Allocation Begins

The FHLBI shall allocate to its Restricted Retained Earnings account an amount at least equal to the Regular Allocation Amount beginning on the REFCORP Termination Date. The FHLBI shall allocate amounts to the Restricted Retained Earnings account only through allocations from its Quarterly Net Income or Adjustments to Prior Net Income occurring on or after the REFCORP Termination Date, but nothing in the Retained Earnings Capital Plan Amendment shall prevent the FHLBI from allocating a greater percentage of its Quarterly Net Income or positive Adjustment to Prior Net Income to its Restricted Retained Earnings account than the percentages set forth in the Retained Earning Capital Plan Amendment.

2. Ongoing Allocation

During any Dividend Restriction Period that occurs before the Allocation Termination Date, the FHLBI shall continue to allocate its Regular Allocation Amount (or when and if required under subsection XI.B.4 below, its Special Allocation Amount) to its Restricted Retained Earnings account.

3. Treatment of Quarterly Net Losses and Annual Net Losses

In the event the FHLBI sustains a Net Loss for a calendar quarter, the following shall apply: (i) to the extent that its cumulative calendar year-to-date net income is positive at the end of such quarter, the FHLBI may decrease the amount of its Restricted Retained Earnings such that the cumulative addition to the Restricted Retained Earnings account calendar year-to-date at the end of such quarter is equal to 20 percent of the amount of such cumulative calendar year-to-date net income; (ii) to the extent that its cumulative calendar year-to-date net income is negative at the end of such quarter (a) the FHLBI may decrease the amount of its Restricted Retained Earnings account such that the cumulative addition calendar year-to-date to the Restricted Retained Earnings at the end of such quarter is zero, and (b) the FHLBI shall apply any remaining portion of the Net Loss for the calendar quarter first to reduce Retained Earnings that are not Restricted Retained Earnings until such Retained Earnings are reduced to zero, and thereafter may apply any remaining portion of the Net Loss for the calendar quarter to reduce Restricted Retained Earnings; and (iii) for any subsequent calendar quarter in the same calendar year, the FHLBI may decrease the amount of its quarterly allocation to its Restricted Retained Earnings account in that subsequent calendar quarter such that the cumulative addition to the Restricted Retained Earnings account calendar year-to-date is equal to 20 percent of the amount of such cumulative calendar year-to-date net income.

In the event the FHLBI sustains a Net Loss for a calendar year, any such Net Loss first shall be applied to reduce Retained Earnings that are not Restricted Retained Earnings until such Retained Earnings are reduced to zero, and thereafter any remaining portion of the Net Loss for the calendar year may be applied to reduce Restricted Retained Earnings.

4. Funding at the Special Allocation Amount

If during a Dividend Restriction Period, the amount of the FHLBI's Restricted Retained Earnings decreases in any calendar quarter, except as provided in subsections XI.B.3(i) and (ii)(a) above, the FHLBI shall allocate the Special Allocation Amount to its Restricted Retained Earnings account beginning at the following calendar quarter-end (except as provided in the last sentence of this subsection). Thereafter, the FHLBI shall continue to allocate the Special Allocation Amount to its Restricted Retained Earnings account until the cumulative difference between: (i) the allocations made using the Special Allocation Amount; and (ii) the allocations that would have been made if the Regular Allocation Amount applied, is equal to the amount of the prior decrease in the amount of its Restricted Retained Earnings account arising from the application of subsection XI.B.3(ii)(b). If at any calendar quarter-end the allocation of the Special Allocation Amount would result in a cumulative allocation in excess of such prior decrease in the amount of Restricted Retained Earnings: (i) the FHLBI may allocate such percentage of Quarterly Net Income to the Restricted Retained Earnings account that shall exactly restore the amount of the prior decrease, plus the amount of the Regular Allocation Amount for that quarter; and (ii) the FHLBI in subsequent quarters shall revert to allocating at least the Regular Allocation Amount.

5. Release of Restricted Retained Earnings

If the FHLBI's RREM decreases from time to time due to fluctuations in the FHLBI's Total Consolidated Obligations, amounts in the Restricted Retained Earnings account in excess of 150 percent of the RREM may be released by the FHLBI from the restrictions otherwise imposed on such amounts pursuant to the provisions of the Retained Earnings Capital Plan Amendment, and reallocated to its Retained Earnings that are not Restricted Retained Earnings. Until the Restriction Termination Date, the FHLBI may not otherwise reallocate amounts in its Restricted Retained Earnings account (provided that a reduction in the Restricted Retained Earnings account following a Net Loss pursuant to subsection XI.B.3 is not a reallocation).

6. No Effect on Rights of Shareholders as Owners of Retained Earnings

In the event of the liquidation of the FHLBI, or a taking of the FHLBI's Retained Earnings by any future federal action, nothing in the Retained Earnings Capital Plan Amendment shall change the rights of the holders of the FHLBI's Class B Stock that confer ownership of Retained Earnings, including Restricted Retained Earnings, as granted under section 6(h) of the Act.

XII. Limitation on Dividends, Stock Purchase and Stock Redemption

A. General Rule on Dividends.

From the REFCORP Termination Date through the Restriction Termination Date, the FHLBI may not pay Dividends, or otherwise reallocate funds (except as expressly provided in subsection XI.B. 5, and further provided that a reduction in the Restricted Retained Earnings account following a Net Loss pursuant to subsection XI.B.3 is not a reallocation), out of Restricted Retained Earnings. During a Dividend Restriction Period, the FHLBI may not pay Dividends out of the amount of Quarterly Net Income required to be allocated to Restricted Retained Earnings.

B. Limitations on Repurchase and Redemption.

From the REFCORP Termination Date through the Restriction Termination Date, the FHLBI shall not engage in a repurchase or redemption transaction if following such transaction the FHLBI's Total Capital as reported to the FHFA falls below the FHLBI's aggregate paid-in amount of Class B Stock.

XIII. Termination of Retained Earnings Capital Plan Amendment Obligations

A. Notice of Automatic Termination Event.

1. Action by FHLBanks

If the FHLBI desires to assert that an Automatic Termination Event has occurred (or will occur on the effective date of a change in a statute or the Regulations), the FHLBI shall provide prompt written notice to all of the other FHLBanks (and provide a copy to the FHFA) identifying the specific statutory or regulatory change that is the basis for the assertion. For the purposes of this section, 'prompt written notice' means notice delivered no later than 90 calendar days subsequent to: (1) the date the specific statutory change takes effect; or (2) the date an interim final rule or final rule effecting the specific regulatory change is published in the Federal Register.

If within 60 calendar days of transmission of such written notice to all of the other FHLBanks, at least 2/3 of the then existing FHLBanks (including the FHLBI) execute a Declaration of Automatic Termination concurring that the specific statutory or regulatory change identified in the written notice constitutes an Automatic Termination Event, then the Declaration of Automatic

Termination shall be delivered by the FHLBI to the FHFA within 10 calendar days of the date that the Declaration of Automatic Termination is executed. After the expiration of a 60 calendar day period that begins when the Declaration of Automatic Termination is delivered to the FHFA, or is delivered to the FHFA by another FHLBank pursuant to the terms of its capital plan, an Automatic Termination Event Declaration Date shall be deemed to occur (except as provided in subsection XIII.A.3).

If a Declaration of Automatic Termination concurring that the specific statutory or regulatory change identified in the written notice constitutes an Automatic Termination Event has not been executed by at least the required 2/3 of the then existing FHLBanks within 60 calendar days of transmission of such notice to all of the other FHLBanks, the FHLBI may request a determination from the FHFA that the specific statutory or regulatory change constitutes an Automatic Termination Event. Such request must be filed with the FHFA within 10 calendar days after the expiration of the 60 calendar day period that begins upon transmission of the written notice of the basis of the assertion to all of the other FHLBanks.

2. Action by FHFA

The FHLBI may request a determination from the FHFA that a specific statutory or regulatory change constitutes an Automatic Termination Event, and may claim that an Automatic Termination Event has occurred, or will occur, with respect to a specific statutory or regulatory change only if the FHLBI has complied with the time limitations and procedures of subsection XIII.A.1.

If within 60 calendar days after the Bank delivers such a request to the FHFA, or another FHLBank delivers such a request pursuant to its capital plan, the FHFA provides the requesting FHLBank with a written determination that a specific statutory or regulatory change is an Automatic Termination Event, then an Automatic Termination Event Declaration Date shall be deemed to occur as of the expiration of such 60 calendar day period (except as provided in subsection XIII.A.3). The date of the Automatic Termination Event Declaration Date shall be as of the expiration of such 60 calendar day period (except as provided in subsection XIII.A.3) no matter on which day prior to the expiration of the 60 calendar day period the FHFA has provided its written determination.

If the FHFA fails to make a determination within 60 calendar days after an FHLBank delivers such request to the FHFA, then an Automatic Termination Event Declaration Date shall be deemed to occur as of the date of the expiration of such 60 calendar day period (except as provided in subsection XIII.A.3); provided, however, that the FHFA may make a written request for information from the requesting FHLBank, and toll such 60 calendar day period from the date that the FHFA transmits its request until that FHLBank delivers to the FHFA information responsive to its request.

If within 60 calendar days after an FHLBank delivers to the FHFA a request for determination that a specific statutory or regulatory change constitutes an Automatic Termination Event (or such longer period if the 60 calendar day period is tolled pursuant to the preceding sentence), the FHFA provides that FHLBank with a written determination that a specific statutory or regulatory change is not an Automatic Termination Event, then an Automatic Termination Event shall not have occurred with respect to such change.

3. Proviso as to Occurrence of Automatic Termination Event Declaration Date

In no case under this subsection XIII.A may an Automatic Termination Event Declaration Date be deemed to occur prior to: (1) the date the specific statutory change takes effect; or (2) the date an interim final rule or final rule effecting the specific regulatory change is published in the Federal Register.

B. Notice of Voluntary Termination.

If the FHLBanks terminate the Agreement, then the FHLBanks shall provide written notice to the FHFA that the FHLBanks have voted to terminate the Agreement.

C. Consequences of an Automatic Termination Event or Vote to Terminate the Agreement.

1. Consequences of Voluntary Termination

In the event the FHLBanks deliver written notice to the FHFA that the FHLBanks have voted to terminate the Agreement, then without any further action by the FHLBI or the FHFA: (i) the date of delivery of such notice shall be an Allocation Termination Date; and (ii) one year from the date of delivery of such notice shall be a Restriction Termination Date.

2. Consequences of an Automatic Termination Event Declaration Date

If an Automatic Termination Event Declaration Date has occurred, then without further action by the FHLBI or the FHFA: (i) the date of the Automatic Termination Event Declaration Date shall be an Allocation Termination Date; and (ii) one year from the date of the Automatic Termination Event Declaration Date shall be a Restriction Termination Date.

3. Deletion of Operative Provisions of Retained Earnings Capital Plan Amendment

Without any further action by the FHLBI or the FHFA, on the Restriction Termination Date, sections X through XIII of this Capital Plan shall be deleted.

Approved by the Board of Directors of the Federal Home Loan Bank of Indianapolis on June 28, 2002, as amended July 24, 2008, March 13, 2009, May 19, 2011 and June 28, 2019; and as approved by the Federal Housing Finance Board on July 10, 2002, with amendments approved by the Federal Housing Finance Board on October 9, 2002, and with amendments approved by the Federal Housing Finance Agency on March 6, 2009, May 18, 2009, August 5, 2011 and December 13, 2019.

Exhibit 4.3

Federal Home Loan Bank of Indianapolis

Description of Securities Registered Under Section 12 of the Exchange Act

The terms of the Bank's Class B stock are interwoven with our capital requirements and with the terms of our Capital Plan, which first became effective on January 2, 2003. The Capital Plan (as amended) is incorporated by reference as Exhibit 4.1 of the Bank's Annual Report on Form 10-K, filed with the Securities and Exchange Commission on March 10, 2020. The Capital Plan is available on our website at www.fhlbi.com. Summaries of the capital requirements and of relevant portions of the Capital Plan are provided below after the description of the material terms of the Class B Stock that follows in order to aid the reader in understanding the background of the Class B Stock.

Description of Class B Stock Pursuant to 17 C.F.R. 229.601 and 17 C.F.R. 229.202

We have only one class of capital stock, Class B Stock, which is authorized, issued, and outstanding. Class B Stock is issued under our Capital Plan, which was approved by the Federal Housing Finance Board (predecessor to the Federal Housing Finance Agency ("Finance Agency")) on July 10, 2002, amended on October 9, 2002, and implemented on January 2, 2003, was further amended effective September 5, 2011, and was further amended effective February 10, 2020. Class B Stock has a par value of $100 per share and may be issued, redeemed, and repurchased only at par value. Class B Stock is held in book-entry form only and is transferable only upon our written approval, which we may withhold in our sole discretion.

The Class B Stock has two subseries, Subseries B-1 and Subseries B-2. We are authorized under our Capital Plan to issue additional Class B Stock, at par value of $100 per share, to our members from time to time. Participation in such offerings is voluntary on the part of our members, on terms and conditions to be determined by our board, but such offerings may not discriminate in favor of or against any member.

Terms Relating to Class B Stock

Conversion

Shares of Subseries B-1 Stock are converted into shares of Subseries B-2 Stock in the event that any of the following four conditions apply:

- if a member withdraws from membership;
- the member is the non-surviving entity in a merger;
- if a financial institution's membership is terminated involuntarily or as a result of the relocation; or
- if the stock becomes subject tot a redemption request by a member.

The only difference between the Subseries B-1 Stock and the Subseries B-2 Stock is that the dividend rate for the Subseries B-2 Stock is lower than the dividend rate for the Subseries B-1 Stock, as described below.

Liquidation Rights

Subject to the authority of the Finance Agency governing liquidations, if the Bank is liquidated, following the retirement of all of our outstanding liabilities to our creditors, all shares of Class B Stock must be redeemed at par value, or if sufficient funds are not available to accomplish the redemption in full of the Class B Stock at par value, then such redemption will occur on a pro rata basis among all holders of the Class B Stock. Following the redemption in full of all Class B Stock, any remaining assets will be distributed to the holders of Class B Stock in the proportion that each member's shares of Class B Stock bears to the total Class B Stock outstanding immediately prior to such liquidation.

Effect of Consolidation or Merger

Mergers and consolidations of Federal Home Loan Banks ("FHLBanks(s)") are governed by the Federal Home Loan Bank Act ("Bank Act") and Finance Agency regulations. In the event we consolidate or merge with another FHLBank, our members will become members of the surviving FHLBank. In such event, our members will either have their existing shares of Class B Stock converted into equivalent stock in the surviving FHLBank, or they will receive such other consideration as is provided in any plan of merger or consolidation or in any lawful order of the Finance Agency. If another FHLBank is merged into us and we are the surviving FHLBank, members of the non-surviving FHLBank will immediately become our members and the outstanding stock of the non-surviving FHLBank will be converted into shares of our Class B Stock, or they will receive such other consideration as is provided in any plan of merger or as provided in any lawful order of the Finance Agency.

Transfer of Stock

Shares of Class B Stock held by a member in excess of the amount the member needs to meet its membership and activity-based investment requirements ("Excess Stock") may be transferred to another member only upon our prior written approval, which may be withheld in our sole discretion. Such transfers must be made at par value and are effective upon being recorded in our stock records. Transferred shares that were subject to a notice of redemption will have the notice automatically cancelled upon the transfer, but no cancellation fee will be charged. All transfers shall be undertaken in accordance with Finance Agency regulations.

Voting Rights

All members holding shares of Class B Stock are entitled to vote for the election of directors pursuant to the Federal Home Loan Bank Act ("Bank Act") and Finance Agency regulations establishing the election procedure. Our district is comprised of the states of Indiana and Michigan. The election and voting for independent director seats are conducted district-wide. Member directors are elected by members in Indiana and Michigan separately as determined by the Finance Agency in its annual determination of the total number of directorships established for the Bank and its annual allocation of member director seats per state. Member director seats can be added or taken away by the Finance Agency based upon increases or decreases in the amount of outstanding stock required to be held by the members in each state.The stock required to be held ("Stock Requirement") by each member is the greater of (i) its Membership Stock Requirement, *i.e.*, the amount that the member must hold based on its total of mortgage assets held ("Total Mortgage Assets"), and (ii) its Activity-based Stock Requirement, *i.e.*, the amount needed to support Advances and other credit products used ("Activity-based Assets"). In the election of directors, members have one vote for each share of stock they hold to meet their Stock Requirement but are subject to caps on the number of shares they can vote, based upon the average number of shares of stock that are required to be held by all members in the applicable state. Members are not entitled to vote any shares of Excess Stock in the election of directors. The stock calculations required to determine the amount of shares eligible to be voted in each election are based upon each member's stock holdings on December 31 of the prior year. There are no voting preferences associated with any class or subseries of Class B Stock.

Classification of Board of Directors / Cumulative Voting

Each member of the Bank's board of directors is elected to a four-year term, and the directors' terms are staggered. In general, a director may serve no more than three consecutive four-year terms. There are no classes of directors, and there is no cumulative voting.

Liability for Capital Assessments

As more particularly described below, we may increase the minimum Stock Requirement of members:

- within certain ranges specified in the Capital Plan; and
- outside such ranges with approval from the Finance Agency.

Such an increase could result in a member being required to purchase additional stock or reduce its volume of activity in order to come into compliance with the new requirements. The failure of a member to comply with the new requirements would result in its access to products and services being suspended until the requirements are met, and failure to comply within ten business days may lead to the possible termination of its membership.

Dividends

Dividends may be, but are not required to be, paid on our Class B Stock. Historically, the board has declared dividends quarterly. Dividends, if declared, may be paid in either cash or stock, or a combination thereof. Dividends on the Subseries B-2 Stock are equal to 80% of any declared dividend on the Subseries B-1 Stock. The calculation of the dividend to be paid is based on the average number of shares of each type held by the member during the quarter.

No dividend may be declared or paid if we are, or would be as a result of such payment, in violation of our minimum capital requirements. Moreover, we may not pay dividends if any principal or interest due on our Consolidated Obligations issued to provide funds to us has not been paid in full or, under certain circumstances, if we fail to satisfy liquidity requirements under applicable Finance Agency regulations. Dividends are non-cumulative and, if declared, are paid only from current net earnings or retained earnings, and are subject to the application of our capital markets policy.

Redemption and Repurchase

As more particularly described below, Class B Stock is redeemable upon written notice from the member, subject to certain restrictions discussed below, after a period of five years ("Redemption Period") from the date of such notice. In addition, Class B Excess Stock may be repurchased by the Bank under certain circumstances. If a member at any time holds Excess Stock, we may, in our discretion, repurchase such Excess Stock at par value upon fifteen days' notice to the member. A member may identify, by date of acquisition, the shares of Excess Stock to be repurchased. A member may also request that we repurchase Excess Stock, resulting from the receipt of stock dividends or otherwise; however, the Bank retains the discretion as to whether or not to repurchase shares of Excess Stock from a member.

A member may file a written request for us to redeem all or part of its Class B Stock. The Redemption Period will commence on the date of our receipt of the written notice. The redemption notice must identify the specific shares of Class B Stock that are to be redeemed by date of acquisition and amount. If the redemption notice fails to identify the particular shares to be redeemed, the member will be deemed to have requested redemption of the most recently acquired shares that are not already subject to a pending redemption request. At the end of the Redemption Period, only Class B Stock that has been held for at least five years and that is then Excess Stock can be used to fill the redemption request. A member may not have more than one notice of redemption outstanding at one time for the same shares of Class B Stock.

If a redemption request is filed with respect to Excess Stock, the member may cancel the redemption request at any time without penalty. If a member files a request to redeem stock that is required to meet the member's Stock Requirement, the stock is immediately converted to Subseries B-2 Stock and receives the lower dividend until (i) the stock is redeemed, (ii) the redemption notice is cancelled, or (iii) the stock is no longer needed as part of the member's Stock Requirement and becomes Excess Stock. If the stock becomes Excess Stock during the Redemption Period, it will be reconverted to Subseries B-1 Stock until it is redeemed or until it is needed again to meet the member's Stock Requirement. If the redemption notice is cancelled, the member may be required to pay a $500 redemption cancellation fee and the stock is reconverted to Subseries B-1 Stock.

At the end of the Redemption Period, the member receives the par value of the stock being redeemed, unless the stock is then needed to support the member's Stock Requirement. All outstanding Activity-based Assets that are supported by the stock subject to the redemption request must be paid in full before the stock will be redeemed. If a member is unable to meet its Stock Requirement within five business days of the end of the Redemption Period, the redemption request is automatically cancelled as to the amount of stock needed to meet the member's Stock Requirement, and a $500 redemption cancellation fee may be applied. Any shares of Excess Stock included in the redemption request will be redeemed.

If, at any time, the Redemption Period for stock owned by more than one member has expired, either with respect to stock subject to a redemption notice or stock of a terminated member, and if the redemption of such stock would cause us to fail to be in compliance with any of our minimum capital requirements, then we will fulfill such redemptions as we are able to accomplish from time to time. In that event, we would begin with such redemptions as to which the redemption period expired on the earliest date and fulfill such redemptions relating to that date on a pro rata basis from time to time until fully satisfied. Thereafter, we would fulfill such redemptions as to which the redemption period expired on the next earliest date in the same manner and continue in that order until all of such redemptions as to which the redemption period has expired have been fulfilled.

If a member has one or more redemption requests outstanding at a time when we choose to repurchase Excess Stock, we will first repurchase the most recently acquired shares of Class B Stock of a member that are Excess Stock and that are not subject to a redemption request, followed by Excess Stock that is subject to a redemption request that has been outstanding for the shortest period of time. Then, to the extent necessary, we will repurchase Excess Stock that is subject to a redemption request that has been outstanding for the next shortest period of time and continue in that order, to the extent necessary, until the member no longer has any Excess Stock, or we have repurchased all of the Excess Stock of the member that we had intended to repurchase.

Any stock that we redeem or repurchase will be retired and will no longer be deemed to be outstanding stock.

Withdrawal or Termination of Membership

Any member may voluntarily withdraw from membership upon written notice to us. Further, an institution's membership may be involuntarily terminated in accordance with regulations of the Finance Agency in effect from time to time, or its membership may be terminated (i) by operation of law if it is the non-surviving entity in a consolidation or merger with a non-member, another member of the Bank, or an institution outside our district, or (ii) if it relocates outside our district.

Any member that withdraws from membership or that has had its membership terminated may not be readmitted as a member of any FHLBank for a period of five years from the date membership was terminated and all of the member's stock was redeemed or repurchased. A transfer of membership without interruption between two FHLBanks will not constitute a termination of membership.

Redemptions of stock of a withdrawing or terminated member will occur in accordance with the redemption provisions discussed in the previous section. However, a voluntarily withdrawing member may continue to do business with the Bank during the Redemption Period of the stock held by the member at the time of its notice of withdrawal. If such business requires that member to purchase additional stock, different Redemption Periods will apply to the newly-purchased stock.

Capital Requirements and the Capital Plan

Regulatory Capital Requirements

The Bank Act and Finance Agency regulations require that each FHLBank maintain permanent capital and total capital in sufficient amounts to comply with specified, minimum risk-based capital and leverage capital requirements. Permanent capital is defined as the amount we receive for our Class B Stock (including mandatorily redeemable stock) plus our retained earnings. Permanent capital must at least equal our risk-based capital requirement, which is defined as the sum of credit risk, market risk, and operations risk capital requirements. Each of these risks is measured in accordance with Finance Agency regulations. Total capital is defined as permanent capital plus a general allowance for losses plus any other amounts determined by the Finance Agency to be available to absorb losses. Total capital must equal at least 4% of total assets. Leverage capital is defined as 150% of permanent capital plus the sum of all other components of capital. Leverage capital must equal at least 5% of total assets. From time to time, for reasons of safety and soundness, the Finance Agency may require one or more of the individual FHLBanks to maintain more permanent capital or total capital than is required by the regulations.

The Bank's authority to redeem or repurchase Class B Stock is subject to a number of regulatory limitations. Specifically, we will not redeem any stock, (notwithstanding the expiration of the Redemption Period), or repurchase any stock: (i) if we are not in compliance with each of our capital requirements; (ii) if the redemption or repurchase would cause us to fail to meet our capital requirements; or (iii) absent approval of the Finance Agency, if we determine or the Finance Agency determines that we have incurred or are likely to incur losses that will result in a charge against our capital.

We also may, subject to certain conditions, suspend redemptions of Class B Stock if we reasonably believe that continued redemption of stock (i) would cause us to fail to meet our minimum capital requirements; (ii) would prevent us from maintaining adequate capital against potential risk that may not be adequately reflected in our minimum capital requirements; or (iii) would otherwise prevent us from operating in a safe and sound manner. During the period of any such suspension of redemptions, we may not repurchase any stock without the approval of the Finance Agency and may be required by the Finance Agency to re-institute the redemption of Class B Stock. In addition, if we reasonably determine that the stock subject to redemption must be maintained as collateral for a member's then-outstanding obligations, we may redeem the stock but will maintain the proceeds in a collateral account until they are no longer needed as collateral.

Stock Investment by Members

Under our Capital Plan, members are required to purchase and hold Class B Stock based upon the greater of the member's Membership Stock Requirement or the member's Activity-based Stock Requirement, with a minimum investment of $1,000. The Capital Plan currently provides for the calculation of the Membership Stock Requirement to be based upon 1.0% of Total Mortgage Assets. In no event is a member required to purchase Class B Stock in excess of $35,000,000 aggregate par value based upon the member's Total Mortgage Assets. The Activity-based Stock Requirement is currently set at the total of the following percentages of a member's Activity-based Assets:

- Credit Products:
    - Advances: 4.5%;
    - Lines of Credit: 4.5%;
    - Standby Letters of Credit: 0.1%;
- Derivative Contracts: 4.5%; and
- Acquired Member Assets: 0.0%.

However, the Capital Plan authorizes our board, in its discretion, to change these percentages within the following respective ranges.

- Total Mortgage Assets: 0.75 to 1.25%;
- Credit Products:
    - Advances: 1.0% to 6.0%;
    - Lines of Credit: 1.0% to 6.0%;
    - Standby Letters of Credit: 0.1% to 6.0%;
- Derivative Contracts: 1.0% to 6.0%; and
- Acquired Member Assets: 0.0% to 6.0%.

Changes in the Activity-based Stock Requirement percentages may, at the discretion of our board, be applied prospectively only as to Activity-based Assets acquired after the date of the notice of the change. Changes outside these ranges would require prior approval from the Finance Agency. An increase in any of the percentages would generally require members to purchase additional shares of Class B Stock.

Each member's Stock Requirement will change from time to time based upon changes in a member's Total Mortgage Assets or Activity-based Assets. Total Mortgage Assets are calculated annually on or about April 1, based upon a member's financial statements as of December 31 of the prior year. The Activity-based Stock Requirement will be recalculated whenever a member enters into an Activity-based Asset. To the extent that a member does not hold sufficient Excess Stock, the member must comply with any associated requirement to purchase additional Class B Stock at the time a new Activity-based Asset is entered into and for as long as the Activity-based Asset is outstanding. We also have the right to recalculate a member's Stock Requirement at any time, using the most recent financial statements and account balance information available to the Bank at the date of recalculation. If a member fails to purchase the additional stock necessary to comply with a recalculated Stock Requirement, its access to our products and services will be suspended until such requirements are met, and any failure to make such stock purchases within 10 business days from the required purchase date may result in involuntary termination of membership.

If our board adjusts the percentages used in calculating the Stock Requirement, the adjustment will go into effect not less than 15 days after declaration by the board and notice to the members. Any member that fails to comply with the new Stock Requirement on the date it becomes effective will not be able to access our products or services of the Bank until such requirements are met and, if the failure continues for at least 10 business days, the member may be involuntarily terminated. Members that have filed a notice of withdrawal from membership or that have had their membership otherwise terminated are not required to meet any increases in the Stock Requirement based upon changes in the Membership Stock Requirement percentage or in the Activity-based Stock Requirement percentages while the notice is pending or subsequent to such termination unless new Activity-based Assets are acquired. Changes in the Activity-based Stock Requirement percentages will be applied to a member's outstanding and new Activity-based Assets (or if the percentage change was prospective only, then only to new Activity-based Assets).

Exhibit 10.6
Approved by the Board of Directors
November 15, 2019

KEY EMPLOYEE SEVERANCE POLICY

1. **Purpose of Policy**. The Federal Home Loan Bank of Indianapolis recognizes the valuable services that Covered Employees (as defined below) will provide and desires to be assured that the Covered Employees will continue their active participation in the business of the Bank. The Covered Employees desire assurance that, in the event of any consolidation, change in control or reorganization of the Bank, they will continue to have the responsibility and status each has earned, either with the Bank or with a successor to the Bank.

2. **Definitions**

"Bank" shall mean the Federal Home Loan Bank of Indianapolis and any other entity within the definition of "Bank" in Section 7(a).

"Cause" shall mean (a) the continued failure of the Covered Employee to perform his duties with the Bank (other than any such failure resulting from Disability), after a demand for performance, pursuant to a resolution of the Bank's Board of Directors, is delivered to the Covered Employee by the Chair of the Board of Directors of the Bank, which specifically identifies the manner in which the Covered Employee has not performed his duties, (b) the personal dishonesty, incompetence, willful misconduct, breach of fiduciary duty involving personal profit, intentional failure to perform stated duties, or willful violation of any law, rule or regulation (other than routine traffic violations or similar offenses); or (c) the removal of the Covered Employee by the Bank at the direction of the Federal Housing Finance Agency, or by the Federal Housing Finance Agency, or by or at the direction of any successor to the Federal Housing Finance Agency, pursuant to 12 U.S.C. §§ 4615, 4616, 4617 or 4636a, or any statutory provisions subsequently enacted that grant removal authority to such agency, or any rules or regulations issued thereunder.

"Compensated Termination" shall have the meaning set forth in Section 3(a).

"Covered Employees" shall mean each of the Bank's Executive Vice Presidents and Senior Vice Presidents, including without limitation the Bank's Chief Internal Audit Officer and Chief Risk Officer, and such other employees as designated from time to time by the Human Resources Committee of the Board of Directors. This Policy does not apply to the Bank's President-Chief Executive Officer. Covered Employees shall be allocated into three (3) groups, Level 1 Participants, Level 2 Participants, and Level 3 Participants, each as described below.

"Disability" shall mean, as a result of the Covered Employee's incapacity due to physical or mental illness, the Covered Employee shall have been absent from his duties with the Bank for an aggregate of twelve (12) out of fifteen (15) consecutive months and, within thirty (30) days after a Notice of Termination is thereafter given by the Bank to the Covered Employee, the Covered Employee shall not have returned to the full-time performance of the Covered Employee's duties.

“Good Reason” shall mean any of the following:

(a) during the period (i) beginning with the earliest to occur of the following three dates, as applicable: (A) six (6) months prior to the execution of a definitive agreement regarding a Reorganization of the Bank or (B) if a Reorganization has been mandated by federal statute, rule, regulation or directive, six (6) months prior to the effective date of such Reorganization or (C) six (6) months prior to the adoption of a plan or proposal for the liquidation or dissolution of the Bank, and (ii) ending twenty-four (24) months after the effective date of such Reorganization,

(i) a material change in the Covered Employee’s status, position, job title or principal duties and responsibilities as a key employee of the Bank which does not represent a promotion from the Covered Employee’s status and position as in effect as of the date hereof (“Position”), or

(ii) the assignment to the Covered Employee of any duties or responsibilities (or removal of any duties or responsibilities), which assignment or removal is materially inconsistent with such Position, or

(iii) any removal of the Covered Employee from such Position (including, without limitation, all demotions and harassing assignments), except in connection with the termination of the Covered Employee’s employment for Cause or Disability, or as a result of the Covered Employee’s death;

(b) within twenty-four (24) months after the effective date of a Reorganization of the Bank, (i) a reduction by the Bank in the Covered Employee’s base salary as in effect immediately prior to such Reorganization, or (ii) the Bank’s (or its successor’s) failure to increase (within twelve (12) months of the Covered Employee’s last increase in base salary) the Covered Employee’s base salary after a Reorganization of the Bank in an amount which is not less than fifty percent (50%) of the average percentage increase in base salary for all officers of the Bank effected in the preceding twelve (12) months;

(c) within twenty-four (24) months after the effective date of a Reorganization of the Bank, (i) any failure by the Bank to continue in effect any plan or arrangement, including, without limitation, benefit and incentive plans, in which the Covered Employee is participating immediately prior to such Reorganization (hereinafter referred to as “Plans”), unless such Plans have been replaced with similar benefits that are not materially less than the Covered Employee’s benefits under such Plans, or (ii) the taking of any action by the Bank which would adversely affect the Covered Employee’s participation in or materially reduce the Covered Employee’s benefits under any such Plan or in or under fringe benefits enjoyed by the Covered Employee immediately prior to the time of such Reorganization of the Bank;

(d) any material breach by the Bank of any provisions of this Policy or any other agreement with the Covered Employee; or

(e) any failure by the Bank or its successors and assigns to obtain the assumption of this Policy by any successor or assign of the Bank.

"Level 1 Participant" shall mean each of the Bank's Executive Vice Presidents.

"Level 2 Participant" shall mean each of the Bank's Senior Vice Presidents.

"Level 3 Participant" shall mean each other officer of the Bank, other than an Executive Vice President or a Senior Vice President, whom the Human Resources Committee designates to be a Level 3 Participant from time to time.

"Notice of Termination" shall mean a written notice which shall indicate those specific termination provisions in this Policy upon which the Bank or the Covered Employee, as the case may be, has relied for such termination and which sets forth in reasonable detail the facts and circumstances claimed to provide a basis for termination of the Covered Employee's employment under the provision so indicated.

"Payment Determination Date" shall have the meaning set forth in Section 3(b).

"Reorganization" of the Bank shall mean the occurrence at any time of any of the following events:

(a) The Bank is merged or consolidated with or reorganized into or with another bank or other entity, or another bank or other entity is merged or consolidated into the Bank;

(b) The Bank sells or transfers all, or substantially all of its business and/or assets to another bank or other entity;

(c) More than fifty percent (50%) of the total market value or total voting power of all ownership interests in the Bank is acquired, within any twelve (12) month period, by one person or entity or by more than one person or entity acting as a group; or

(d) The liquidation or dissolution of the Bank.

Provided that the term "Reorganization" shall not include any Reorganization that is mandated by federal statute, rule, regulation, or directive, including 12 U.S.C. § 1421, *et seq*., as amended, and 12 U.S.C. § 4501 *et seq*., as amended, and which the Director of the Federal Housing Finance Agency (or successor agency) has determined should not be a basis for making payment under this Policy, by reason of the capital condition of the Bank or because of unsafe or unsound acts, practices, or condition ascertained in the course of the Agency's supervision of the Bank or because any of the conditions identified in 12 U.S.C. § 4617(a)(3) are met with respect to the Bank (which conditions do not result solely from the mandated reorganization itself, or from action that the Agency has required the Bank to take under 12 U.S.C. § 1431(d)).

"Retirement" shall mean the planned and voluntary termination by the Covered Employee of his or her employment on or after reaching the earliest retirement age permitted by the Bank's qualified retirement plans.

3. Compensated Termination

(a) Compensated Termination. If the Covered Employee incurs a Compensated Termination while the Covered Employee is employed by the Bank or within twenty-four (24) months after the effective date of a Reorganization of the Bank (whether the Covered Employee is then employed by the Bank or a successor to the Bank as a result of such Reorganization), the Covered Employee shall be entitled to the benefits provided in Section 5. For purposes of this Policy, a "Compensated Termination" means termination of the Covered Employee's employment under either of the following circumstances:

(i) By the Covered Employee for Good Reason; or

(ii) By the Bank, or by its successor in a Reorganization, without Cause at any time during the period (1) beginning with the earliest to occur of the following three dates, as applicable (A) six (6) months prior to the execution of a definitive agreement regarding a Reorganization, or (B) if a Reorganization has been mandated by federal statute, rule, regulation or directive, six (6) months prior to the effective date of such Reorganization, or (C) six (6) months prior to the adoption of a plan or proposal for the liquidation or dissolution of the Bank, and (2) ending twenty-four (24) months after the effective date of such Reorganization.

(b) Payment Determination Date. "Payment Determination Date," for purposes of determining when a payment resulting from a Compensated Termination must be made pursuant to Section 4(a), shall mean the effective date of the termination of the Covered Employee's employment with the Bank if such termination is a "Compensated Termination."

(c) Non-Compensated Termination. For the avoidance of doubt, none of the following events shall result in any payment to the Covered Employee for a Compensated Termination under Section 5(a):

(i) The termination of employment by the Covered Employee without Good Reason;

(ii) The termination of the Covered Employee's employment for Cause by the Bank or its successor in a Reorganization;

(iii) The termination of the Covered Employee's employment Without Cause by the Bank or its successor in a Reorganization, (1) prior to the date which is the earliest to occur of the following three dates, as applicable: (A) six (6) months prior to the execution of a definitive agreement regarding a Reorganization of the Bank or (B) if a Reorganization has been mandated by federal statute, rule, regulation or directive, six (6) months prior to the effective date of such Reorganization or (C) six (6) months prior to the adoption of a plan or proposal for the liquidation or dissolution of the Bank, or (2) more than twenty-four (24) months after the effective date of a Reorganization;

(iv) The termination of the Covered Employee's employment by the Bank or its successor in a Reorganization for Disability;

(v) The death of the Covered Employee; or

(vi) The Retirement of the Covered Employee, if the Covered Employee has delivered written notice to the Bank, before the commencement of the time period described in Section 3(c)(iii), of his or her intention to retire.

4. Termination of Employment.

(a) Termination by the Bank. The Bank may terminate the employment of the Covered Employee as follows:

(i) For Cause upon the adoption of a resolution by the affirmative vote of not less than a majority of the entire membership of the Bank's Board of Directors at a meeting of the Board (after reasonable notice to the Covered Employee and an opportunity for the Covered Employee, together with counsel, to be heard by the Board), finding that in the good faith opinion of the Board the Covered Employee was guilty of conduct set forth in the definition of "Cause" in Section 2 and specifying the particulars thereof in detail. A vote of the Board is not required if the Covered Employee is removed for cause by the Bank at the direction of the Federal Housing Finance Agency, or by the Federal Housing Finance Agency, or by or at the direction of any successor to the Federal Housing Finance Agency, pursuant to 12 U.S.C. §§ 4615, 4616, 4617 or 4636a, or any statutory provisions subsequently enacted that grant removal authority to such agency, or any rules or regulations issued thereunder.;

(ii) Without Cause;

(iii) Upon the Disability of the Covered Employee; and

(iv) Upon the death of the Covered Employee.

(b) Termination by Covered Employee. The Covered Employee may terminate his or her employment with the Bank as follows:

(i) For Good Reason;

(ii) Without Good Reason; or

(iii) Upon the Covered Employee's Retirement, in which case the Covered Employee shall be entitled to all benefits under any retirement plan of the Bank and other plans to which the Covered Employee is a party.

(c) Preservation of Compensated Termination. The provisions of Sections 4(a) and 4(b) are included in this Policy for clarification of the rights of termination of the employment relationship between the Bank and the Covered Employee, but such provisions shall not prejudice the Covered Employee's right to receive payments or benefits required to be provided to the Covered Employee if any such termination is a "Compensated Termination."

(d) Notice of Termination.

(i) Any termination by the Bank for Disability or Cause shall be communicated by a Notice of Termination; provided, however, that the failure by the Bank to give notice in such circumstances shall not constitute a Compensated Termination.

(ii) Any termination of employment by the Covered Employee for Good Reason will be a Compensated Termination only if the Covered Employee gives Notice of Termination to the Bank therefore within ninety (90) days of the event or occurrence which constitutes "Good Reason," provided, further, that, if the Covered Employee gives such Notice of Termination to the Bank in a timely manner, the Covered Employee shall not be deemed to have waived any of his or her rights hereunder in the event he or she remains in the employment of the Bank while he or she and the Bank engage in good faith discussions to resolve any event or occurrence which constitutes "Good Reason." The Bank has a thirty (30) day period following receipt of notice during which it may remedy the condition and not be required to pay the amount.

(iii) Any termination by the Bank without Cause or by the Covered Employee without Good Reason shall be communicated to the other party in accordance with the general notice provisions of this Policy.

5. Payment for Compensated Termination.

(a) In the event of a Compensated Termination, the Bank shall pay or provide the Covered Employee with an amount equal to the following:

(i) With respect to Level 1 Participants, two (2) times the average of the three (3) preceding calendar years' gross base salary (inclusive of amounts deferred under a qualified or nonqualified plan sponsored by the Bank) and gross bonuses (inclusive of any amounts deferred under a qualified or nonqualified plan sponsored by the Bank) paid to the Covered Employee during such years (provided that for any calendar year in which the Covered Employee received base salary for less than the entire calendar year, the gross amount shall be annualized as if such amount had been payable for the entire calendar year).

(ii) With respect to Level 2 Participants, one and one-half (1.5) times the average of the three (3) preceding calendar years' gross base salary (inclusive of amounts deferred under a qualified or nonqualified plan sponsored by the Bank) and gross bonuses (inclusive of any amounts deferred under a qualified or nonqualified plan sponsored by the Bank) paid to the Covered Employee during such years (provided that for any calendar year in which the Covered Employee received base salary for less than the entire calendar year, the gross amount shall be annualized as if such amount had been payable for the entire calendar year).

(iii) With respect to Level 3 Participants, one (1) times the average of the three (3) preceding calendar years' gross base salary (inclusive of amounts deferred under a qualified or nonqualified plan sponsored by the Bank) and gross bonuses (inclusive of any amounts deferred under a qualified or nonqualified plan sponsored by the Bank) paid to the Covered Employee during such years (provided that for any calendar year in which the Covered Employee received base salary for less than the entire calendar year, the gross amount shall be annualized as if such amount had been payable for the entire calendar year).

The Bank shall distribute such amount in a lump sum in cash within twenty (20) days of the Payment Determination Date.

(b) Notwithstanding Section 5(a), if the Bank is not in compliance with any applicable regulatory capital or regulatory leverage requirement or if the payment would cause the Bank to fall below applicable regulatory requirements, such payment shall be deferred until such time as the Bank achieves compliance with its regulatory requirement.

(c) To the extent the Covered Employee is eligible, he or she shall continue after a Compensated Termination to be covered by the Bank's medical and dental insurance plans in effect immediately prior to the Compensated Termination, subject to the Covered Employee's payment of the employee's portion of the cost of such coverage. This continuing medical and dental insurance shall continue for Level 1 Participants for twenty-four (24) months, for Level 2 Participants for eighteen (18) months, and for Level 3 Participants for twelve (12) months. In the event the Covered Employee is ineligible under the terms of such plans to continue to be so covered or such plans shall have been modified, the Bank shall provide through other sources coverage which is substantially equivalent to the coverage provided immediately prior to the Compensated Termination, subject to the Covered Employee's payment of a comparable portion of the cost of such coverage as under the Bank's medical and dental insurance plans. If during this time period the Covered Employee should enter into employment providing for comparable medical and dental insurance coverage, his or her participation in the medical and dental plans provided by the Bank shall cease.

(d) The Bank will provide outplacement services for the Covered Employee after a Compensated Termination, at the Bank's cost.

(e) The Covered Employee shall be responsible for the payment of all federal, state and local income taxes which may be due with respect to any payments made to the Covered Employee pursuant to this Policy.

(f) If the severance and other benefits provided for in this Agreement or otherwise payable to the Covered Employee (i) constitute "parachute payments" within the meaning of Section 280G of the Internal Revenue Code of 1986, as amended (the "Code") and (ii) but for this provision, would be subject to the excise tax imposed by Section 4999 of the Code, then such severance and other benefits shall be collectively subject to an overall maximum limit. The payment limit shall be one dollar ($1) less than the aggregate amount which would otherwise cause any such payments to be considered a "parachute payment" within the meaning of Section 280G of the Code. Unless the Bank and the Covered Employee otherwise agree in writing, any determination required under this provision shall be made in writing by the Bank's independent public accountants (the "Accountants"), whose determination shall be conclusive and binding upon the Covered Employee and the Bank for all purposes. For purposes of making the calculations required by this provision, the Accountants may make reasonable assumptions and approximations concerning applicable taxes and may rely on reasonable, good faith interpretations concerning the application of Sections 280G and 4999 of the Code. The Bank and the Covered Employee shall furnish to the Accountants such information and documents as the Accountants may reasonably request in order to make a determination under this provision. The Bank shall bear all costs the Accountants may reasonably incur in connection with any calculations contemplated by this provision. Accordingly, to the extent that such severance and other benefits would be considered a "parachute payment," or are "deferred compensation" within the meaning of Section 409A of the Code, the severance and other benefits will be reduced pro rata until the remaining severance and other benefits shall be reduced or eliminated in the following order until the remaining severance and other benefits payable hereunder are collectively within the maximum described in this Subsection:

(i) first, any cash payments to the Covered Employee;

(ii) second, any change of control termination payments to the Covered Employee not described herein; and

(iii) third, any forgiveness of indebtedness of the Covered Employee to the Bank.

Each Covered Employee expressly and irrevocably waives any and all rights to receive any severance and other payments which exceed the maximum limit described in this Subsection.

6. <u>No Obligation to Seek Further Employment; No Effect on Other Contractual Rights</u>.

(a) The Covered Employee shall not be required to seek other employment, nor shall any payment made under this Policy be reduced by any compensation received from other employment.

(b) The provisions of this Policy, and any payment provided for hereunder, shall not reduce any amounts otherwise payable, or in any way diminish the Covered Employee's existing rights, or rights which would accrue solely as a result of the passage of time, under any Plan, except to the extent set forth in Section 6(c).

(c) The following rules clarify the interaction of this Policy with the Bank's Severance Pay Plan ("SPP").

(i) If a Covered Employee becomes eligible to receive benefits under this Policy (*e.g.*, if the Covered Employee experiences a Compensated Termination), the Covered Employee shall be entitled to receive benefits under this Policy and not under the SPP, regardless of whether the Covered Employee would otherwise be eligible for benefits under the SPP.

(ii) If a Covered Employee becomes eligible for benefits under the SPP, but does not become eligible to receive benefits under this Policy, the Covered Employee shall be entitled to receive benefits under the SPP.

(iii) Notwithstanding subsection 6(c)(ii), if (A) a Covered Employee receives benefits under the SPP, and (B) the Covered Employee subsequently becomes eligible to receive benefits under this Policy, then the Covered Employee shall be entitled to receive the benefits contemplated by this Policy, but the total benefits received by the Covered Employee on account of both the SPP and this Policy may not exceed those contemplated by this Policy alone. Therefore, if the Covered Employee is entitled to receive any benefits under this Policy, such benefits shall be automatically reduced by the amount of benefits the Covered Employee received pursuant to the SPP.

7. <u>Successor to the Bank</u>.

(a) This Policy is binding upon the successors and assigns of the Bank. The Bank and its successors and assigns will require any successor or assign (whether direct or indirect, in a Reorganization, by operation of law, or otherwise) to all or substantially all of the business and/or assets of the Bank, to enter into a written agreement in form and substance satisfactory to the Covered Employee. In the written agreement, the successor and its assigns will expressly, absolutely and unconditionally assume and agree to perform this Policy in the same manner and to the same extent that the Bank would be required to perform it if no such succession or assignment had taken place. In such event, the Bank agrees that it shall pay or shall cause such employer to pay any amounts owed to the Covered Employee pursuant to Section 5.

As used in this Policy, "Bank" shall mean the Bank as hereinbefore defined and any successor or assign to its business and/or assets as aforesaid which executes and delivers the agreement provided for in this Section or which otherwise becomes bound by all the terms and provisions of this Policy by operation of law. If at any time during the term of this Policy the Covered Employee is employed by any corporation a majority of the voting securities of which is then owned by the Bank, the term "Bank" shall include such employer. Whether or not another entity becomes the successor or assign of the Bank under this Policy, the maximum amount which the Covered Employee may receive from all sources under this Policy in a Compensated Termination shall be the amounts set forth in Section 5.

(b) This Policy shall inure to the benefit of and be enforceable by the Covered Employee's personal and legal representatives, executors, administrators, successors, heirs, distributees, and legatees. If the Covered Employee should die while any amounts are still payable to him hereunder, all such amounts, unless otherwise provided herein, shall be paid in accordance with the terms of this Policy to the beneficiary designated by notice in writing executed by the Covered Employee and filed with the Bank, or failing such designation, to the Covered Employee's estate.

8. Late Payment of Benefits. Any payment made later than the time provided for in Section 5(a) for whatever reason, including, without limitation, the reasons set forth in Section 5(b), shall include interest at the Bank's cost of funds plus five percent (5%), which shall begin to accrue on the tenth (10th) day following the Covered Employee's Payment Determination Date.

9. Employment Rights. This Policy shall not confer upon the Covered Employee any right to continue in the employ of the Bank and shall not in any way affect the right of the Bank to dismiss or otherwise terminate the Covered Employee's employment at any time and for any reason with or without cause. This Policy is not intended (a) to be an employment agreement or (b) to define all aspects of the employment relationship between the Bank and the Covered Employee including, but not limited to applicable employment or benefit policies of the Bank. To the extent there is any conflict between the terms hereof and the terms of any employment or benefit policies of the Bank, the terms of this Policy shall control. Any payments or benefits to which the Covered Employee may be entitled under Section 5 will not constitute wages for work performed by the Covered Employee.

10. Tax Withholding. The Bank will withhold from any amounts payable to Covered Employee under this Policy to satisfy all applicable federal, state, local or other withholding taxes. All amounts payable under Section 5(a) are considered "wages" to be reported on Form W-2. The normal withholding rules for wages apply. The Bank will also withhold any excise taxes owed under Code Section 4999.

11. Notice. For purposes of this Policy, notices and all other communications provided for in the Policy shall be in writing and shall be deemed to have been duly given when delivered by hand, delivered by a nationally-recognized overnight courier service, or mailed by United States registered mail, return receipt requested, postage prepaid, as follows:

If to the Bank:

Federal Home Loan Bank of Indianapolis
8250 Woodfield Crossing Boulevard
Indianapolis, Indiana 46240
Attention: Chairman of the Board of Directors
With a copy to the President

If to the Covered Employee:

At the address on file with the Bank's Human Resources department

or such other address as either party may have furnished to the other in writing in accordance herewith. Any notice shall be effective upon receipt.

12. Legal Fees and Expenses. The Bank shall pay all reasonable legal fees and expenses which the Covered Employee may incur as a result of the Bank's contesting the validity or enforceability of this Policy or the calculation of amounts payable hereunder so long as the Covered Employee is wholly or partially successful on the merits or the parties agree to a settlement of the dispute.

13. Term. This Policy is effective upon its approval by the Board of Directors. The Human Resources Committee will review this Policy, recommend any changes, and recommend Board approval at least once per calendar year. If the Human Resources Committee does not act to approve, amend, or terminate this Policy in a calendar year, this Policy shall automatically renew for an additional 3 year period.

14. Arbitration.

(a) Disputes regarding this Policy are subject to the Federal Home Loan Bank of Indianapolis Agreement to Arbitrate by and between the Bank and the Covered Employee ("Arbitration Agreement"). No cancellation, replacement or modification to the arbitration procedures under the Arbitration Agreement shall be effective unless agreed to in writing by both the Bank and the Covered Employee. In the event of any conflict between the provisions of this Policy and the Arbitration Agreement, the provisions of this Policy shall control.

(b) If within thirty (30) days after any Notice of Termination is given, the party receiving such Notice of Termination notifies the other party that a dispute exists concerning the Termination, the parties shall promptly proceed to arbitration as provided in Section 14(a). Notwithstanding the pendency of any such dispute, the Bank shall continue to pay the Covered Employee his or her base salary and provide such other compensation and benefits, all as in effect immediately prior to the Notice of Termination. If it is determined that the Covered Employee is not entitled to any compensation under Section 5, the Covered Employee shall return all cash amounts to the Bank promptly following the date of resolution by arbitration, with interest thereon commencing as of the date of the resolution of the dispute by arbitration at the prime rate of interest as published by the *Wall Street Journal* from time to time. Any cash amounts paid to the Covered Employee pending the resolution of the dispute by arbitration shall offset any amounts determined to be due to the Covered Employee under Section 5.

15. Miscellaneous.

(a) No Waiver. No waiver by either party hereto at any time of any breach by the other party hereto of, or compliance with, any condition or provision of this Policy to be performed by such other party shall be deemed a waiver of similar or dissimilar provisions or conditions at the same or at any prior or subsequent time.

(b) Entire Policy. No agreements or representations, oral or otherwise, express or implied, with respect to the subject matter hereof have been made by either party which are not set forth expressly in this Policy.

(c) Governing Law. This Policy shall be governed by and construed in accordance with the laws of the State of Indiana (excluding conflicts of laws principles), except to the extent such law is preempted by the laws of the United States.

(d) Headings. Section or paragraph headings contained herein are for convenience of reference only and are not to be considered a part of this Policy.

(e) Validity. The invalidity or unenforceability of any provisions of this Policy shall not affect the validity or enforceability of any other provision of this Policy, which shall remain in full force and effect.

(f) Rescission of Prior Agreements. This Policy shall rescind and be in full replacement of any prior "Key Employee Severance Agreement" entered into between the Covered Employee and the Bank.

(g) Administration. This Policy shall be administered by the Director of Human Resources. Interpretations and decisions by the Bank's Director of Human Resources regarding the application of this Policy, made in the Bank's sole discretion, shall be final, provided the interpretations and decisions are consistent with the Bank's authority under applicable federal and state law.

(h) No Discrimination. This Policy will be applied on a non-discriminatory basis without regard to race, color, religion, national origin, sex, age, sexual orientation, handicap, gender identity, genetic information, veteran's status, parental status, pregnancy status, citizenship status, or mental or physical disability, and without regard to whether the employee has made charges, testified, assisted or participated in enforcement proceedings based on an otherwise unlawful employment practice, in accordance with federal law.

EXHIBIT 24

POWER OF ATTORNEY
ANNUAL REPORT ON FORM 10-K FOR FISCAL 2019

KNOW ALL PERSONS BY THESE PRESENTS that each of the undersigned Directors of the Federal Home Loan Bank of Indianapolis (the "Company") hereby constitutes and appoints Cindy L. Konich (Principal Executive Officer), Gregory L. Teare (Principal Financial Officer) and K. Lowell Short, Jr. (Principal Accounting Officer), or any of them, his or her true and lawful attorneys-in-fact and agents, with full power of substitution and revocation, to execute any and all instruments that said attorneys-in-fact and agents, or any of them, may deem necessary or advisable or may be required to enable the Company to comply with the Securities Exchange Act of 1934, as amended (the "1934 Act"), and any rules, regulations or requirements of the Securities and Exchange Commission (the "Commission") in respect thereof, in connection with the filing under the 1934 Act of the Company's Annual Report on Form 10-K for the year ended December 31, 2019 (the "2019 Annual Report"), including specifically, but without limiting the generality of the foregoing, power and authority to sign the name of each of the undersigned in the capacity of Director of the Company to the 2019 Annual Report to be filed with the Commission and to any instruments or documents filed as part of or in connection with the 2019 Annual Report, including any amendments or supplements thereto; and granting unto each of said attorneys-in-fact and agents full power and authority to do and perform each and every act and thing requisite and necessary to be done, as fully to all intents and purposes as the undersigned might or could do in person, and each of the undersigned hereby ratifies and confirms all that said attorneys-in-fact and agents, or any of them, shall do or cause to be done by virtue hereof.

This power of attorney will be governed by and construed in accordance with the laws of the State of Indiana. This power of attorney will remain in effect until revoked in writing by a resolution of the Company's Board of Directors. The execution of this power of attorney is not intended to, and does not, revoke any prior powers of attorney.

IN WITNESS WHEREOF, each of the undersigned has subscribed these presents this 24th day of January, 2020.

FEDERAL HOME LOAN BANK OF INDIANAPOLIS

/s/ DAN L. MOORE
Dan L. Moore, Chair

/s/ JAMES L. LOGUE III
James L. Logue III, Vice Chair

/s/ BRIAN D.J. BOIKE
Brian D.J. Boike

/s/ JONATHAN P. BRADFORD
Jonathan P. Bradford

/s/ RONALD BROWN
Ronald Brown

/s/ CHARLOTTE C. DECKER
Charlotte C. Decker

/s/ ROBERT M. FISHER
Robert M. Fisher

/s/ KAREN F. GREGERSON
Karen F. Gregerson

/s/ MICHAEL J. HANNIGAN, JR.
Michael J. Hannigan, Jr.

/s/ JEFFREY G. JACKSON
Jeffrey G. Jackson

/s/ CARL E. LIEDHOLM
Carl E. Liedholm

/s/ ROBERT D. LONG
Robert D. Long

/s/ MICHAEL J. MANICA
Michael J. Manica

/s/ LARRY W. MYERS
Larry W. Myers

/s/ CHRISTINE COADY NARAYANAN
Christine Coady Narayanan

/s/ LARRY A. SWANK
Larry A. Swank

/s/ RYAN M. WARNER
Ryan M. Warner

Exhibit 31.1

Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, Cindy L. Konich, certify that:

1. I have reviewed this annual report on Form 10-K of the Federal Home Loan Bank of Indianapolis;

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

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

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

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

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

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 10, 2020

By: /s/ CINDY L. KONICH

Name: Cindy L. Konich

Title: President - Chief Executive Officer

Exhibit 31.2

Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, Gregory L. Teare, certify that:

1. I have reviewed this annual report on Form 10-K of the Federal Home Loan Bank of Indianapolis;

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

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

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

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

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

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 10, 2020

By: /s/ GREGORY L. TEARE

Name: Gregory L. Teare

Title: Executive Vice President - Chief Financial Officer

Exhibit 31.3

Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, K. Lowell Short, Jr., certify that:

1. I have reviewed this annual report on Form 10-K of the Federal Home Loan Bank of Indianapolis;

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

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

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

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

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

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 10, 2020

By: /s/ K. LOWELL SHORT, JR.

Name: K. Lowell Short, Jr.

Title: Senior Vice President - Chief Accounting Officer

Exhibit 32

SECTION 1350 CERTIFICATIONS

In connection with the annual report of the Federal Home Loan Bank of Indianapolis ("Bank") on Form 10-K for the period ended December 31, 2019, as filed with the Securities and Exchange Commission on the date hereof ("Report"), each of the undersigned officers certifies, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

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

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

By: /s/ CINDY L. KONICH
Cindy L. Konich
President - Chief Executive Officer
March 10, 2020

By: /s/ GREGORY L. TEARE
Gregory L. Teare
Executive Vice President - Chief Financial Officer
March 10, 2020

By: /s/ K. LOWELL SHORT, JR.
K. Lowell Short, Jr.
Senior Vice President - Chief Accounting Officer
March 10, 2020