

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

FORM 10-K

**ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 2021**
OR
 **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from _____ to _____**
Commission File No. 000-51401



**FHLBank
Chicago**

Federal Home Loan Bank of Chicago

(Exact name of registrant as specified in its charter)

Federally chartered corporation

(State or other jurisdiction of incorporation or organization)

**433 West Van Buren Street, Suite 501S
Chicago, IL**

(Address of principal executive offices)

36-6001019

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

60607

(Zip Code)

Registrant's telephone number, including area code: **(312) 565-5700**

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
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Securities registered pursuant to Section 12(g) of the Act: **Class B Capital Stock, par value \$100 per share**

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 filings requirements for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes No

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

Large accelerated filer

Accelerated filer

Non-accelerated filer

Smaller reporting company

Emerging growth company

If 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 standard provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report.

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes No

Registrant's 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 applicable regulatory and statutory limits. At June 30, 2021, the aggregate par value of the stock held by current and former members was \$2,255,000,754. As of January 31, 2022, registrant had 23,805,941 total outstanding shares of Class B Capital Stock, including mandatorily redeemable capital stock.



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(Dollars in tables in millions except per share amounts unless otherwise indicated)

Item 1. Business.

Where to Find More Information

The Federal Home Loan Bank of Chicago^a maintains a website located at <http://www.fhlbc.com> where we make available our financial statements and other information regarding us and our products free of charge. We are required to file with the Securities and Exchange Commission (SEC) an annual report on Form 10-K, quarterly reports on Form 10-Q, and current reports on Form 8-K. The SEC maintains a website that contains these reports and other information regarding our electronic filings located at <http://www.sec.gov>. Information on these websites, or that can be accessed through these websites, does not constitute a part of this annual report.

A **Glossary of Terms** can be found on page 128.

Introduction

We are a federally chartered corporation and one of 11 Federal Home Loan Banks (the FHLBs) that, with the Office of Finance, comprise the Federal Home Loan Bank System (the System). The FHLBs are government-sponsored enterprises (GSE) of the United States of America and were organized under the Federal Home Loan Bank Act of 1932, as amended (FHLB Act), in order to improve the availability of funds to support home ownership.

Each FHLB operates as a separate entity with its own management, employees, and board of directors. Each FHLB is a member-owned cooperative with members from a specifically defined geographic district. Our defined geographic district consists of the states of Illinois and Wisconsin. We are supervised and regulated by the Federal Housing Finance Agency (FHFA), an independent federal agency in the executive branch of the United States (U.S.) government.

As a cooperative, we do business with our members and, under limited circumstances, our former members, as well as providing support for the members of other FHLBs through our role operating the Mortgage Partnership Finance[®] (MPF[®]) Program. All federally insured depository institutions, insurance companies engaged in residential housing finance, credit unions and community development financial institutions located in Illinois and Wisconsin are eligible to apply for membership. All members are required to purchase our capital stock as a condition of membership; our capital stock is not publicly traded.

"Mortgage Partnership Finance", "MPF", "eMPF", "MPF Xtra", "Downpayment Plus", "DPP", "Downpayment Plus Advantage", "DPP Advantage", and "Community First" are federally registered trademarks of the Federal Home Loan Bank of Chicago.

Mission Statement

Our mission is to partner with our member shareholders in Illinois and Wisconsin to provide them competitively priced funding, a reasonable return on their investment in the Bank, and support for community investment activities.

^a Unless otherwise specified, references to we, us, our and the Bank are to the Federal Home Loan Bank of Chicago.



FHLBank
Chicago Federal Home Loan Bank of Chicago

(Dollars in tables in millions except per share amounts unless otherwise indicated)

Membership Trends

The following table presents the geographic locations of our members by type of institution:

	December 31, 2021				December 31, 2020			
	Number of Institutions				Number of Institutions			
	Illinois	Wisconsin	Total	Percent	Illinois	Wisconsin	Total	Percent
Commercial banks	298	146	444	65 %	306	150	456	66 %
Savings institutions	45	20	65	10 %	46	21	67	10 %
Credit unions	49	52	101	15 %	48	52	100	15 %
Insurance companies	43	17	60	9 %	42	15	57	8 %
Community Development Financial Institutions	5	1	6	1 %	5	1	6	1 %
Total	440	236	676	100 %	447	239	686	100 %

The following table presents our FDIC-insured depository institution members by asset size. Community Financial Institution is defined by our regulator, the FHFA, as FDIC-insured institutions with no more than \$1.239 billion (the limit during 2021) in average total assets over three years. This limit is adjusted annually for inflation. See the **Glossary of Terms** on page 128 for further details.

As of December 31,	2021	2020
FDIC-insured depository institution member asset size:		
Community Financial Institutions	89.39 %	90.25 %
Larger non-CFI institutions	10.61 %	9.75 %
Total	100.00 %	100.00 %

In 2021, our total membership declined by 10 institutions.

We lost 17 members due to mergers and acquisitions. Although 16 of these members were acquired by other members in our district, one was acquired by an out-of-district institution.

Additionally, pursuant to the FHFA 2016 Final Rule for Membership in the Federal Home Loan Bank System, effective February 19, 2021, we terminated the membership of our three captive insurance companies.

We gained 10 new members by adding four credit unions and six insurance companies during 2021, as we continue to work toward our goal of building a stronger cooperative by adding new members.

In 2021, 90% of our member institutions used at least one of our core product offerings - advances, letters of credit, or MPF Program products - or participated in our competitive Affordable Housing Program (AHP) or Downpayment Plus® Program (DPP®) Programs.



(Dollars in tables in millions except per share amounts unless otherwise indicated)

Business Overview

Our mission-focused business is different from that of a typical financial services firm. As a cooperative, we use our resources to support member utilization of the cooperative, and to support the communities in which members operate.

Our mission is to partner with our members in Illinois and Wisconsin to provide them with competitively priced funding, a reasonable return on their investment in the Bank, and support for their community investment activities. Our vision is dedication to efficiently delivering valuable products, solutions, and services to our members through teamwork, innovative thinking, and creating positive change with our commitment to diversity, equity, and inclusion.

Our strategy focuses on three primary pillars:

- 1. Financial Strength and Member Engagement.** Leverage our financial strength to ensure we stay true to our mission: we will support our members' return on investment; provide meaningful support for their community investment activities; and promote member engagement.
- 2. Technology and Operational Excellence.** Achieve operational excellence by: designing processes around technology solutions; providing nimbleness, security and scale; enhancing customer experience; and increasing efficiencies.
- 3. Talent and Culture.** Build an inclusive workplace that: promotes diversity and equity and attracts and retains key talent in a rapidly changing environment.

Mission Asset Ratio

The following table represents our view of the mission-focused business we do as a cooperative bank.

	2021	2020
Average par value for the year ended December 31,		
Advances	\$ 51,394	\$ 53,639
Mortgage assets (Acquired Member Assets - AMA)	9,760	10,312
Primary mission assets	\$ 61,154	\$ 63,951
Consolidated obligations	\$ 89,437	\$ 94,130
U.S. Treasuries	2,490	5,487
Consolidated obligations less U.S. Treasuries	\$ 86,947	\$ 88,643
Primary mission asset ratio	70.3 %	72.1 %
Supplemental mission assets and activities as of December 31,		
MPF Program Loans held by other third party investors	\$ 26,813	\$ 26,300
Member standby letters of credit	11,317	16,395
Mission related liquidity	12,530	7,527
Small Business Administration investments	2,806	2,529
Housing authority standby bonds purchased and commitments outstanding	510	480
MPF Loan delivery commitments	366	1,527
Advance commitments	45	595
Member derivatives	2	2
Community First Fund loans and commitments	46	46
Supplemental mission assets and activities	\$ 54,435	\$ 55,401

We provide credit to members principally in the form of secured loans called advances (inclusive of forward starting advances), as well as through standby letters of credit. We provide liquidity for home mortgage loans to members approved as Participating Financial Institutions (PFIs) through the MPF Program. We also serve as a critical source of standby liquidity for our members.

Our primary funding source is proceeds from the sale to the public of FHLB debt instruments (consolidated obligations) which are, under the FHLB Act, the joint and several liability of all the FHLBs. Consolidated obligations are not obligations of the U.S. government, and the U.S. government does not guarantee them. Additional funds are provided by deposits, other borrowings,



(Dollars in tables in millions except per share amounts unless otherwise indicated)

and the issuance of capital stock. We also provide members and non-members with correspondent services such as safekeeping, wire transfers, and cash management.

The FHFA issued an advisory bulletin which provides guidance relating to how the FHFA will assess each FHLB's core mission achievement. The FHFA will assess core mission achievement by using a ratio of primary mission assets, which includes advances and mortgage loans acquired from members (also referred to as acquired member assets), to consolidated obligations, less U.S. Treasuries held for liquidity purposes in our trading or available-for-sale accounts. The primary mission asset ratio will be calculated annually at year-end as part of the FHFA's examination process, using annual average par values. When the ratio is at least 70% or higher, the FHLB's strategic plan should include an assessment of the FHLB's prospects for maintaining this level and when the ratio is less than 70%, the FHFA expects certain actions with respect to an FHLB's strategic plan to increase the ratio.

Our primary mission asset ratio for the year ended December 31, 2021, was 70.3%.

For a discussion on how the change in business activities with significant members and the loss of such members may negatively impact our primary mission asset ratio, see **Risk Factors** on page 22.

Member-Focused Business

Member credit products, which include advances, standby letters of credit, and other extensions of credit to borrowers, are discussed in detail below.

Advances

We provide credit to members principally in the form of secured loans, called advances. Our advances to members:

- serve as a reliable source of funding and liquidity;
- provide members with enhanced tools for asset-liability management;
- provide interim funding for those members that choose to sell or securitize their mortgages;
- support residential mortgages held in member portfolios;
- support important housing markets, including those focused on very low-, low-, and moderate-income households; and
- provide funds to member community financial institutions (CFI) for secured loans to businesses, farms, agribusinesses, and community development activities.

We make secured, fixed- or floating-rate advances to our members. Advances are secured by mortgages and other collateral that our members pledge. We determine the maximum amount and term of advances we will lend to a member as follows:

- we value the types of collateral eligible to be pledged to us and apply a margin to secure our advances to members, based on our assessment of the member's creditworthiness and financial condition; and
- we conduct periodic collateral reviews with members to establish the amount we will lend against each collateral type.

We are required to obtain and maintain a security interest in eligible collateral at the time we originate or renew an advance. For further detail on our underwriting and collateral guidelines, see **Establishing Credit Limits** on page 70.

We offer a variety of fixed- and adjustable-rate advances, with maturities ranging from one day to 30 years. Examples of standard advance structures include the following:

- **Fixed-Rate Advances:** Fixed-rate advances have maturities from one day to 30 years.
- **Variable-Rate Advances:** Variable-rate advances include advances that have interest rates that reset periodically at a fixed spread to an FHLB discount note rate-based index, federal funds, or some other index (such as the Secured Overnight Financing Rate (SOFR)). Depending upon the type of advance selected, the member may have an interest-rate cap embedded in the advance to limit the rate of interest the member would have to pay.



(Dollars in tables in millions except per share amounts unless otherwise indicated)

- **Putable Advances:** We issue putable, fixed- and floating-rate advances in which we maintain the right to terminate the advance at predetermined exercise dates at par.
- **Callable Advances:** We issue callable, fixed-rate advances in which members have the right to prepay the advance on predetermined dates without incurring prepayment or termination fees.
- **Other Advances:** (1) Open-line advances are designed to provide flexible funding to meet our members' daily liquidity needs and may be drawn for one day. These advances are automatically renewed. Rates are set daily at the close of business. (2) Fixed amortizing advances have maturities that range from one year to 30 years, with the principal repaid over the term of the advances monthly, quarterly, or semi-annually. (3) Fixed Rate with Floating Spread advances are designed to meet our members' liability duration needs at lower cost than regular fixed rate advances.

We also offer features designed to meet our members' business needs such as the following:

- Symmetrical prepayment feature where the member would either pay a prepayment fee or prepay the advance below par upon termination, depending on the structure of the advance at the time of termination.
- Commitment feature, called "forward-starting advances", to fund an advance on a negotiated funding date at a predetermined interest rate.
- Expander feature, which allows a member one or multiple opportunities to increase the principal amount of the advance.

The FHLB Act authorizes us to make advances to non-member housing associates that meet regulatory eligibility requirements including that the housing associate is approved under Title II of the National Housing Act. We currently have approved four non-member housing associates that are eligible to borrow from the Bank. We had \$17 million in advances outstanding to non-member housing associates at December 31, 2021, and \$18 million at December 31, 2020.

For disclosure relating to our five largest advance borrowers as of December 31, 2021, see page 52.

Competition

Demand for our advances is affected by, among other things, the availability and cost of other sources of funding to our members, including our members' customer deposits. We compete with suppliers of both secured and unsecured wholesale funding. These competitors may include investment banks, commercial banks, and other FHLBs when our members' affiliated institutions are members of other FHLBs. Under the FHLB Act and FHFA regulations, affiliated institutions in different FHLB districts may be members of different FHLBs.

Some members may have limited access to alternative funding sources while other members may have access to a wider range of funding sources, such as repurchase agreements, brokered deposits, commercial paper, covered bonds collateralized with residential mortgage loans, and other funding sources. Some members, particularly larger members, may have independent access to the national and global credit markets.

The availability of alternative funding sources influences the demand and pricing for our advances and can vary as a result of a number of factors, such as the regulatory environment, market conditions, products, members' creditworthiness, and availability of collateral. We compete for advances on the basis of the total cost of our products to our members (which include the rates we charge, required capital stock purchases, and any dividends we pay), credit and collateral terms, prepayment terms, product features such as embedded options, and the ability to meet members' specific requests on a timely basis. In addition, the transition from the London Interbank Offer Rate (LIBOR) to SOFR (as further discussed in **LIBOR Transition** on page 56) may impact the pricing of our advance products relative to competitor rates and may reduce the number of advance products we can offer.

In addition, our competitive environment continues to be impacted by the changes in the interest-rate environment and the extent to which our members use our advances primarily as a back-up source of liquidity as opposed to part of their primary funding strategies. Moreover, the Federal Reserve's emergency actions to increase liquidity, along with additional liquidity from stimulus actions, have resulted in lower demand for new advances from our depository members and prepayment of their existing advances. For further discussion of the impact of these and other factors on demand for our advances, see **Risk Factors** starting on page 22.



(Dollars in tables in millions except per share amounts unless otherwise indicated)

Standby Letters of Credit

We may provide members and housing associates with standby letters of credit (also referred to herein as letters of credit) to support obligations to third parties to facilitate residential housing finance, community lending, to achieve liquidity, and for asset-liability management purposes. In particular, members often use letters of credit as collateral for deposits from federal and state governmental agencies. Letters of credit are generally available for terms of up to 20 years or for a one year term renewable annually. If we are required to make payment for a beneficiary's draw, these amounts either must be reimbursed by the member immediately or may be converted to an advance. Our underwriting and collateral requirements for letters of credit are the same as the underwriting and collateral requirements for advances. Effective May 3, 2021, letters of credit are subject to an activity capital stock requirement. If any advances were to be made in connection with these standby letters of credit, they would be made under the same standards and terms as any other advance. For more details on our letters of credit see **Note 16 - Commitments and Contingencies** to the financial statements.

Mortgage Partnership Finance Program

MPF Program Overview

We developed the MPF Program to provide an additional source of liquidity to our members and to allow us to invest in mortgages to help fulfill our housing mission. The MPF Program is a secondary mortgage market business under which we purchase mortgage loans from our members and housing associates and members and housing associates of other FHLBs (together with us, the MPF Banks) that participate in the MPF Program (collectively, Participating Financial Institutions or PFIs). These mortgage loans are conventional and government mortgage loans secured by one-to-four family residential properties with maturities ranging from 5 to 30 years or participations in such mortgage loans that are acquired under the MPF Program (MPF Loans).

We purchase MPF Loans to retain in our portfolio for investment, to sell to third parties, or to securitize Government Loans into Ginnie Mae MBS. We have also purchased and sold MPF Loan participations with other MPF Banks. Our regulatory limit for our investment in MPF Loans held in our portfolio is the lesser of eight times retained earnings or 20% of total assets. Our MPF Loan products are outlined in the chart below.

MPF Product	Mortgage Type	Loan Balance	Held in our Portfolio for Investment?
MPF Original ^a , MPF 35 ^a , MPF 100 ^{a,b} , MPF 125 ^a and MPF Plus ^{a,b}	Conventional	Conforming	Yes
MPF Government ^c	Government	Determined by the applicable government agency eligibility guidelines	Yes
MPF Xtra [®]	Conventional	Conforming	MPF Loans are concurrently sold to the Federal National Mortgage Association (Fannie Mae).
MPF Direct ^b	Conventional	Non-conforming (jumbo - up to \$2,500,000)	MPF Loans are concurrently sold to a third party investor.
MPF Government MBS	Government	Determined by the applicable government agency eligibility guidelines	Government Loans are held in our portfolio for a short period of time until such loans are pooled into Ginnie Mae MBS.

^a PFIs share in the associated credit risk of these MPF Loan products in accordance with the FHFA Acquired Member Assets (AMA) regulation requirements.

^b MPF 100, MPF Plus, and MPF Direct are not currently offered.

^c Government Loans are insured or guaranteed by one of the following government agencies: the Federal Housing Administration (FHA); the Department of Veterans Affairs (VA); Rural Housing Service of the Department of Agriculture (RHS); or Department of Housing and Urban Development (HUD) (collectively, Government Loans).

We provide programmatic and operational support in our role as the administrator of the MPF Program on behalf of the other MPF Banks for a fee. MPF Banks may acquire whole loans from their PFIs to retain on their balance sheet. Other MPF Banks' PFIs that participate in off-balance sheet products sell MPF Loans directly to us.



(Dollars in tables in millions except per share amounts unless otherwise indicated)

Member PFIs

Members and eligible housing associates become PFIs of their respective MPF Bank by executing a PFI Agreement that provides the MPF Loan selling and servicing terms and conditions. The MPF Guides supplement the PFI Agreement and provides additional requirements for PFI eligibility including maintenance of anti-predatory lending policies, errors and omissions insurance and a fidelity bond. All of the PFI's obligations under the PFI Agreement are secured under its advances agreement with the MPF Bank. A PFI is required to deliver collateral for their CE Amount (as further discussed below) and an MPF Bank can request additional collateral to secure the PFI's other obligations under the PFI Agreement, if necessary.

Mortgage Standards

For conventional MPF Loans held in our portfolio, PFIs are required to deliver mortgage loans that meet the underwriting and eligibility requirements in the PFI Agreement and the MPF Guides, unless a PFI is granted a waiver exempting a requirement. MPF Loan requirements include:

- A maximum loan-to-value (LTV) ratio of 95%;
- Mortgage Loans with LTVs greater than 80% must be insured by primary mortgage insurance (PMI);
- Compliance with all applicable laws documented using standard Fannie Mae/Freddie Mac Uniform Instruments; and
- Meeting the definition of a Qualified Mortgage under the Truth in Lending Act (TILA).

Mortgage loans that are classified as high cost, high rate, Home Ownership and Equity Protection Act loans, or loans in similar categories defined under predatory lending or abusive lending laws are not eligible under the MPF Program. We perform a quality assurance review of a selected sample of MPF Loans for each PFI in order to determine that the loans complied with the MPF Program requirements at the time of acquisition.

For our off-balance sheet and Government Loan products, PFIs are required to deliver mortgage loans that meet the applicable investor or government agency eligibility and underwriting requirements outlined in the MPF Guides.

We make customary representations and warranties regarding the eligibility of the off balance sheet MPF Loans to third party investors. If a loan eligibility requirement or other warranty is breached, these third parties could require us to repurchase the MPF Loan or provide an indemnity. PFIs make the same representations and warranties to us with respect to the MPF Loans. When a PFI sells a mortgage loan under any MPF Loan product that fails to comply with the representations and warranties, the PFI may be required to provide an indemnification covering related losses or to repurchase the MPF Loans if the failure cannot be cured. See **Mortgage Repurchase Risk** on page 74 for further information about MPF Loans repurchases.

Loss Structure for Credit Risk Sharing Products

For conventional MPF Loan products held in our portfolio, PFIs are required to share in the credit risk associated with the mortgage loans. Each MPF Loan delivered by a PFI is linked to a Master Commitment (MC) and any losses arising from a mortgage loan are allocated to the appropriate loss layer in that MC. Credit losses not absorbed by the borrower's equity in the property and any primary mortgage insurance (if available) are allocated between a PFI and their MPF Bank in the following order:

- The PFI's performance based CE Fees. The PFI is paid a monthly credit enhancement fee for sharing the credit risk associated with these mortgage loans (CE Fees) and some of this fee may be performance based. CE Fees vary between 6 and 14 basis points depending on the product. We will withhold a PFI's scheduled performance based CE Fees in order to reimburse ourselves for any losses allocated to the First Loss Account (FLA) and the amount of such withholding is a component of the overall credit enhancement provided by the PFI.
- The MPF Bank's First Loss Account (FLA). The FLA functions as a tracking mechanism for our first layer of credit loss exposure before the PFI's credit enhancement obligation (CE Amount) would cover the next layer of losses. The amount of the FLA is agreed upon when a PFI begins to sell loans into an MC depending on the product. Our FLA exposure varies by MPF Loan product type and it can build over the life of the MC by 3 to 6 basis points annually or it can be fixed at 35 or 100 basis points.
- The PFI's CE Amount. The PFI's CE Amount is a direct liability of the PFI to pay credit losses up to a specified amount, which may include proceeds from a provider of supplemental mortgage guaranty insurance (SMI). The CE Amount is determined by the MPF Bank consistent with the FHFA's AMA regulation. For further details, see **Setting Credit Enhancement Levels** on page 73.
- The MPF Bank. After the CE Amount has been exhausted, the MPF Bank will absorb any further losses.



(Dollars in tables in millions except per share amounts unless otherwise indicated)

MPF Servicing

PFIs can retain the rights and responsibilities for servicing MPF Loans sold under the MPF Program or choose a servicing released option. If PFIs chose to retain servicing rights for MPF Loans sold under the MPF Xtra and MPF Government MBS products, we are contractually obligated to Fannie Mae and Ginnie Mae, respectively, with respect to servicing those loans. The MPF Direct product was servicing released only and we did not have any responsibilities related to the servicing of MPF Loans delivered under the MPF Direct product.

We monitor servicers that service (1) MPF Loans held in our portfolio and (2) MPF Loans that are sold under MPF Xtra and MPF Government MBS when we are contractually responsible to Fannie Mae or Ginnie Mae, respectively, for the loan servicing. If a servicer fails to comply with the servicing requirements, we can charge fees, require mortgage loan repurchase, request indemnification or terminate the servicer's right to service the MPF Loans.

Competition

We face competition in the markets for conventional loans, Government Loans, and loans with credit risk sharing arrangements from secondary market participants. Secondary market participants include, but are not limited to, dealers, banks, hedge funds, money managers, insurance companies, large mortgage aggregators, private investors, and other GSEs such as Fannie Mae and Freddie Mac. Some of these competitors have greater resources, larger volumes of business, and longer operating histories. As a result, our ongoing revenue derived from MPF Loan products may be affected by the volume of business done by our competitors.

Other Activities

Investments

We maintain a portfolio of investments for liquidity purposes and to provide additional earnings. To ensure the availability of funds to meet member credit needs, we maintain a portfolio of short-term liquid assets, principally overnight federal funds sold, and securities purchased under agreements to resell, entered into with or issued by highly rated institutions and other eligible counterparties. For further discussion of unsecured credit exposures related to our short-term investment portfolio, see **Unsecured Short Term Investments** on page 79.

Our longer-term investment debt securities portfolio includes securities issued by the U.S. government, U.S. government agencies, and GSEs, as well as investments in Federal Family Education Loan Program (FFELP) student loan asset-backed securities (ABS), and mortgage-backed securities (MBS) that are issued by GSEs. For a discussion of the carrying values and ratings of these securities, see **Investment Debt Securities** on page 77. For this purpose, GSE includes Fannie Mae and Freddie Mac. Securities issued by GSEs are not guaranteed by the U.S. government.

Under FHFA regulations, we are prohibited from trading debt securities for speculative purposes or engaging in market-making activities. Additionally, we are prohibited from investing in certain types of securities or loans, including:

- instruments, such as common stock, that represent an ownership in an entity, other than common stock in small business investment companies (where one or more members or housing associates of the Bank also make a material investment in the same activity) or certain investments targeted to low-income households or communities;
- instruments issued by non-U.S. entities, other than those issued by U.S. branches and agency offices of foreign commercial banks;
- non-investment grade debt instruments, other than certain investments targeted to low-income households or communities, or instruments that were downgraded after purchase;
- whole mortgages or other whole loans, other than, (1) those acquired under our MPF Program, (2) certain investments targeted to low-income households or communities, (3) certain marketable direct obligations of state, local, or tribal government units or agencies, that are investment quality, (4) certain MBS or asset-backed securities backed by manufactured housing loans or home equity loans; and, (5) certain foreign housing loans authorized under the FHLB Act;
- interest-only or principal-only stripped securities;



(Dollars in tables in millions except per share amounts unless otherwise indicated)

- residual-interest or interest-accrual classes of securities;
- fixed-rate MBS or eligible ABS, or floating-rate MBS or eligible ABS, that on the trade date are at rates equal to their contractual cap and that have average lives that vary by more than six years under an assumed instantaneous interest rate change of 300 basis points, unless the instrument qualifies as AMA; and
- non-U.S. dollar-denominated securities.

FHFA regulations further limit our investment in MBS and ABS by requiring that these investments may not exceed 300% of our previous month-end regulatory capital on the day we purchase the securities and we may not exceed our holdings of such securities in any one calendar quarter by more than 50% of our total regulatory capital at the beginning of that quarter. For purposes of calculating the limit on our MBS/ABS portfolio, we value our investments in accordance with FHFA regulations based on amortized cost for securities classified as held-to-maturity or available-for-sale and on fair value for trading debt securities. Regulatory capital consists of our total capital stock (including the mandatorily redeemable capital stock) plus our retained earnings. This limitation does not apply to instruments qualifying as AMA, like newly issued Ginnie Mae securities that have been created through the MPF Government MBS product that are temporarily owned by the Bank.

Additionally, we are subject to certain investment limitations related to LIBOR, as discussed in **LIBOR Transition** on page 56.

Derivative Activities

We engage in most of our derivative transactions with major broker-dealers as part of our interest rate risk management and hedging strategies. Additionally, we also enter into interest rate derivatives with our members in order to provide them with indirect access to the derivatives market. In instances where we do not use interest rate derivatives for our own hedging purposes, we act as an intermediary for our members by entering into an interest rate derivative directly with the member and then entering into an offsetting interest rate derivative transaction with a non-member counterparty. We do not act as a dealer in derivative transactions involving members.

The FHFA's regulations and our internal derivatives and hedging policies all establish guidelines for our use of interest rate derivatives. These regulations prohibit the speculative use of financial instruments authorized for hedging purposes. They also limit the amount of counterparty credit risk allowed. See **Item 7A. Quantitative and Qualitative Disclosures About Market Risk** on page 81.

Community Investment Activities

We provide financing and direct funding tools that support the affordable housing and community lending initiatives of our members that benefit very low-, low-, and moderate-income individuals, households, businesses and neighborhoods. Outlined below is a more detailed description of the mission-related programs that we administer and fund:

Affordable Housing Program (AHP) - We offer AHP subsidies in the form of direct grants to members to stimulate affordable rental and homeownership opportunities for households with incomes at or below 80% of the area's median income, adjusted for family size. By regulation, we are required to contribute 10% of our income before assessments to fund AHP. Of that required contribution, we may allocate up to the greater of \$4.5 million or 35% to provide funds to members participating in our homeownership set-aside programs. For a discussion of potential legislation that would require that the FHLBs to set aside higher percentages of their earnings for their affordable housing and community investment programs than are currently required by law, see **Recent Legislative and Regulatory Developments** on page 19.

Direct grants are available under our competitive AHP to members in partnership with community sponsors and may be used to fund the acquisition, rehabilitation, and new construction of affordable rental or owner-occupied housing. We awarded competitive AHP subsidies of \$30 million for the year ended December 31, 2021 and \$25 million for the year ended December 31, 2020, for projects designed to provide housing to 2,430 and 2,113 households.

In addition, direct grants are available to members under our Downpayment Plus homeownership set-aside programs and may be provided to eligible homebuyers to assist with down payment, closing, counseling, or rehabilitation costs in conjunction with an acquisition. During the years ended December 31, 2021 and 2020, we funded \$19 million and \$17 million through our Downpayment Plus programs to assist 3,365 and 2,999 very low- to moderate-income homebuyers.

During 2022, we anticipate having \$32 million available in total for our Downpayment Plus programs and grants through our competitive AHP.



(Dollars in tables in millions except per share amounts unless otherwise indicated)

Community Advances Programs and related letters of credit - We offer programs where members may apply for advances or letters of credit to support affordable housing or community economic development lending. These programs provide advance funding at interest rates below regular advance rates for terms typically up to 10 years. Our Community Advances programs may be used to finance affordable homeownership housing, multi-family rental projects, industrial and manufacturing facilities, agricultural businesses, healthcare, educational centers, public or private infrastructure projects, or commercial businesses. As of December 31, 2021, and 2020, we had \$318 million and \$381 million in advances outstanding under the Community Advances programs and related letters of credit outstanding of \$69 million and \$77 million.

Community First[®] Fund - Our Board of Directors approved \$50 million in 2011 to supplement our current affordable housing and community investment programs, which became the foundation for the Community First Fund (the Fund). The Fund is an innovative revolving credit facility designed to provide low cost, longer term financing to community development financial institutions, community development loan funds, and state housing finance authorities promoting affordable housing and economic development in our district. We approved our first loans under the Fund in 2014 and as of December 31, 2021, and 2020, had \$45 million in principal outstanding and less than \$1 million in unfunded loan commitments outstanding.

COVID-19 Relief Programs - In response to the COVID-19 pandemic, in 2021, the Bank offered an additional COVID-19 Relief Advance Program to support communities in Illinois and Wisconsin. For more information on our COVID-19 Relief Programs, see **COVID-19 Relief Advance** on page 16.

Deposits

We accept deposits from our members, institutions eligible to become members, any institution for which we are providing correspondent services, other FHLBs, and other government instrumentalities. We offer several types of deposits to our deposit customers including demand, overnight, and term deposits. For a description of our liquidity requirements with respect to member deposits see **Liquidity** on page 54.

Funding

Consolidated Obligations

Our primary source of funds is the sale to the public of FHLB debt instruments, called consolidated obligations, in the capital markets. Additional funds are provided by deposits, other borrowings, and the issuance of capital stock. Consolidated obligations, which consist of bonds and discount notes, are the joint and several liability of the FHLBs, although the primary obligation is with the individual FHLB that receives the proceeds from issuance. Consolidated obligations are issued to the public through the Office of Finance using authorized securities dealers. Consolidated obligations are backed only by the financial resources of the FHLBs and are not guaranteed by the U.S. government. See **Funding** on page 55 for further discussion.

Competition

We compete with the U.S. government, Fannie Mae, Freddie Mac, and other GSEs, as well as corporate, sovereign, and supranational entities, including the World Bank, for funds raised through the issuance of unsecured debt in the domestic and global debt markets. Increases in the supply of competing debt products may, in the absence of increases in demand, result in higher debt costs or lesser amounts of debt issued at the same cost than otherwise would be the case. For example, a change in the types or an increase in the amounts of U.S. Treasury issuance may affect our ability to raise funds because it provides alternative investment options. Furthermore, to the extent that investors perceive Fannie Mae and Freddie Mac or other issuers as having a higher level of government support, their debt securities may be more attractive to investors than FHLB System debt.

The FHLBs have traditionally had a diversified funding base of domestic and foreign investors, although investor demand for our debt depends in part on prevailing conditions in the financial markets. For further discussion of market conditions and their potential impact on us, see **Risk Factors** starting on page 22 and **Funding** on page 55.

Although the available supply of funds from the FHLBs' debt issuances has kept pace with the funding requirements of our members, there can be no assurance that this will continue to be the case.



(Dollars in tables in millions except per share amounts unless otherwise indicated)

Business Environment

Our financial condition and results of operations are influenced by the interest rate environment, global and national economies, local economies within our district of Illinois and Wisconsin, and the conditions in the financial, housing, and credit markets. In particular, our net interest income is affected by several external factors, including market interest rate levels and volatility, credit spreads and the general state of the economy. We endeavor to manage our interest rate risk by entering into fair value hedge relationships utilizing interest rate derivative agreements to hedge a portion of our advances, available-for-sale debt securities, and debt. We are exposed to the variability in the total net proceeds received from forecasted zero-coupon discount note issuances, which is attributable to changes in the benchmark interest rate, LIBOR. Our cash flow hedge objective/strategy is to hedge the total net proceeds received from our "rolling" forecasted zero-coupon discount note issuances attributable to changes in LIBOR by entering into interest rate swap(s) to mitigate such risk. We are not using the cash flow hedge strategy for new transactions at this time, as we use LIBOR as the benchmark interest rate for cash flow hedges and we are not entering into new LIBOR-linked transactions. Additionally, we enter into economic hedges using derivative agreements to hedge our mortgage-related assets, which are sensitive to changes in mortgage rates. Many of our balance sheet hedging strategies are subject to change due to the planned phase-out of LIBOR. For further discussion of the potential impact of the LIBOR transition, see **Risk Factors** starting on page 22 and **LIBOR Transition** on page 56.

Our profitability is significantly affected by the interest rate environment. We earn relatively narrow spreads between yields on assets and the rates paid on corresponding liabilities. A large portion of our advance business is based on our funding costs plus a narrow spread. We also expect our ability to generate significant earnings on capital and short-term investments will be affected by the Federal Reserve's policy of setting the short-term federal funds rate. Income and spreads can also be affected by changes in regulations or accounting rules, which can change the funding, hedging, and the liquidity profile of our balance sheet. Short-term interest rates also directly affect our earnings on invested capital. The size of our balance sheet and amount of our earnings are also affected by the level of advances outstanding, the demand for which is affected by the amount of liquidity in the banking system, which in turn depends in part on the level of monetary stimulus from the Federal Reserve and fiscal stimulus from the government.

Our operating results are affected not only by rising or falling interest rates, but also by the particular path and volatility of changes in market interest rates and the prevailing shape of the yield curve. A flattening of the yield curve tends to compress our net interest margin, while steepening of the curve offers better opportunities to purchase assets with wider net interest spreads. The Federal Reserve's purchase or sale of securities in the open market impacts market spreads generally, including the spreads we earn on our investment portfolio. The performance of our MPF Loans held for investment portfolio is particularly affected by shifts in the 10-year maturity range of the yield curve, which heavily influences mortgage rates and potential refinancings. Yield curve shape can also influence the pace at which borrowers refinance or prepay their existing loans, as borrowers may select shorter-duration mortgage products in a refinancing. As higher coupon MPF Loans mature, the return of principal may not be invested in assets with a comparable yield, resulting in a potential decline in the aggregate yield on the remaining MPF Loans held for investment portfolio and investment debt securities and a possible decrease in our net interest margin.

Lastly, the volume related to our MPF Xtra and our Ginnie Mae MBS issuances also are influenced by the interest rate environment, global and national economies, local economies within our districts of Illinois and Wisconsin, and the conditions in the financial, housing and credit markets.



(Dollars in tables in millions except per share amounts unless otherwise indicated)

Environmental, Social, and Governance

As a cooperative, we provide reliable, low-cost liquidity to our member banks, credit unions, insurance companies, and community development financial institutions located in Illinois and Wisconsin. We also provide members and housing associates with financial products and services to support and enhance mortgage lending and community investment in their communities. These products and services help our members fund loans and investments held in portfolio, manage liquidity, fund mortgages into the secondary market, secure third party agreements, and achieve asset liability management goals. Through our community investment grants, products, and programs, we also help our members to provide affordable housing and economic development in the diverse communities they serve.

Environmental

Climate Change

Climate change, weather-related events, other natural or environmental disasters, or other disruptive events could have a material adverse impact on our members and, ultimately, on, our business and results of operations. We've established a climate change team to identify, track, and manage the climate change risks that may have an impact on our business, financial condition, and results of operations. For a discussion of these risks, see **Risk Factors** on page 22.

Physical and transition risks related to climate change that may affect our business, financial condition, and results of operations, such as policy and regulatory changes, market trends that may alter business opportunities, credit risks, or technological changes are rapidly changing, often in ways that disrupt business, the economy and peoples' lives. Following an extreme weather event, our members and PFIs may grant forbearances to borrowers to provide short-term relief. In the past, we've temporarily adjusted our eligibility with respect to member collateral or MPF loans to help impacted communities. In December 2021, we activated our Community First Disaster Relief Program in response to a FEMA and state-declared disaster in Illinois resulting from severe storms including straight-line winds and tornados. Under this program, our member institutions may apply for \$5,000 grants on behalf of homeowners and small businesses located in the qualifying disaster area to cover damages incurred. Since this program's inception in 2013, we have awarded over \$1.6 million in disaster relief funding. For more information, see **Grant Programs** in the table on page 15.

Sustainability at the Old Post Office (OPO)

In May 2021, we relocated to the Old Post Office at 433 West Van Buren Street in Chicago, Illinois. This move represents an enhanced commitment to energy efficiency. Last year, the OPO achieved both LEED Gold and WELL building certification. Our new building also offers a variety of green and eco-friendly actions in which we participate. Additionally, there are amenities we utilize to help create a more sustainable environment. These amenities include a recycling program, which helps to extend the life of current landfill areas, e-recycling for electronic waste such as light bulbs and ballasts, and a 3.5-acre green space on the rooftop.

Social

Community Investment Activities

A focus on community investment continues to be core to our mission and a primary component of the value delivered to our members. Our Community Investment strategy is informed by continuous assessment of the district's affordable housing and community development needs, and programming is designed to address gaps in resources for critical needs. We committed \$207 million in grants, advances, and loans to Community Investment in 2021, and \$13.9 billion cumulatively since 1989. For detailed information on our **Community Investment Activities**, see page 11.



(Dollars in tables in millions except per share amounts unless otherwise indicated)

The table below summarizes our community lending and grant programs since their inception with a brief description of each of these programs following the table.

2021 Community Investment Performance Summary

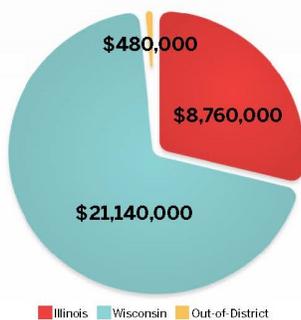
The Federal Home Loan Bank of Chicago (FHLBank Chicago) provides financing and direct funding tools that support the affordable housing and local community lending initiatives of our members. By using our products individually or in combination, FHLBank Chicago members and their community partners can create economically competitive solutions that contribute to the quality of life in the communities they serve.

Programs	Regulatory/ Voluntary	2021 Beneficiaries	2021 Dollars	Cumulative Beneficiaries	Cumulative Dollars
Community Lending					
Community Development Advance	R	3 (t)	\$62,050,000	1,004 (t)	\$3,165,060,000
Community Housing Advance	R	514 (u)	\$83,720,000	139,875 (u)	\$9,888,320,000
Community Development/Housing Advance	R	2 (t)	\$430,000	44 (t)	\$1,560,000
Community Small Business Advance	V	20 (t)	\$10,820,000	84 (t)	\$45,240,000
Community First® Fund ⁱ	V	0	\$0	8	\$45,750,000
<i>Subtotal Community Lending</i>		539	\$157,020,000	141,015	\$13,145,930,000
Grant Programs					
Affordable Housing Program (AHP) General Fund	R	2,430 (u)	\$30,380,000	88,805 (u)	\$538,750,000
Downpayment Plus® (DPP®) Program*	R & V	3,272 (u)	\$18,900,000	44,761 (u)	\$240,640,000
Downpayment Plus Advantage® (DPP Advantage®)	R & V	93 (u)	\$560,000	1,537 (u)	\$9,200,000
Community First® Capacity-Building Grant Program ⁱⁱ	V	6	\$300,000	47	\$2,010,000
Community First® Awards ⁱⁱ	V	4	\$40,000	43	\$390,000
Community First® Disaster Relief Program ⁱⁱ	V	0	\$0	327	\$1,630,000
<i>Subtotal Grant Programs</i>		5,805	\$50,180,000	135,520	\$792,620,000
Total Program Financing			\$207,200,000		\$13,938,550,000

* DPP® includes approximately \$4.6 million in voluntary funds for 2021 and \$16.2 million cumulative since 2017.

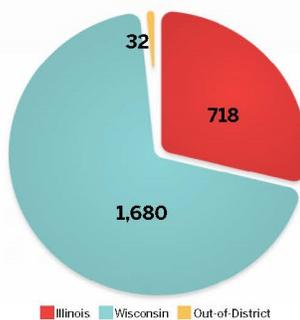
(t) transactions (u) housing units (i) beneficiaries are partners (ii) beneficiaries are grantees

Competitive AHP Dollars



Total: \$30,380,000

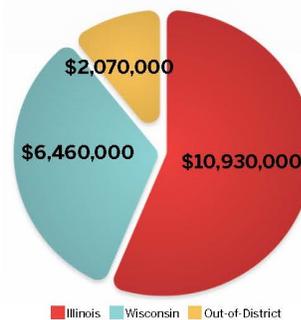
Competitive AHP Units



Total: 2,430

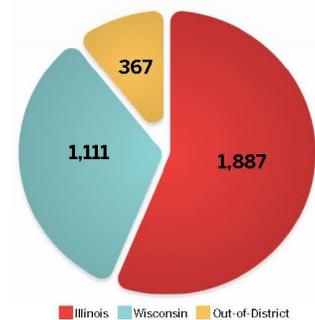
Unit Breakdown:	Homeownership	Rental
Illinois	44	674
Wisconsin	152	1,528
Out-of-District	0	32
Total:	196	2,234

DPP® Dollars



Total: \$19,460,000

DPP® Beneficiaries



Total: 3,365

*Out-of-District represents grants made by our members for their customers that are located outside of Illinois and Wisconsin.



(Dollars in tables in millions except per share amounts unless otherwise indicated)

Community Lending

We offer discounted credit products to lower the cost of financing to support our members' community lending activities. These credit products consist of:

- **Community Development Advances:** Supports our members' efforts to promote economic development in their communities through small business, agricultural, commercial, and infrastructure lending.
- **Community Housing Advances:** Supports our members' affordable housing lending.
- **Community Small Business Advances:** Supports the local economy and community revitalization efforts in members' communities.
- **Community First Fund:** Provides low cost, longer term financing to support community and economic development activities.

In total, for the year ended December 31, 2021, we originated \$157 million in advances and other loans under these community lending programs, and cumulatively \$13.1 billion since the inception of these programs in 1989.

Grant Programs

We provide grant funding to support the affordable housing and economic development initiatives of our members. By using our products individually or in combination, our members and their community partners create economically competitive solutions that benefit the communities they serve.

- **Affordable Housing Program:** A grant program that provides gap financing to support the acquisition, new construction, and/or rehabilitation of affordable rental or owner-occupied housing.
- **Downpayment Plus Program and Downpayment Plus Advantage[®]:** Grant programs that provide easy-to-access down payment and closing cost assistance to income-eligible homebuyers through our members.
- **Community First Capacity-Building Grants:** Since program inception in 2017, this annual program has provided nonprofit lenders with grants to support organizational capacity-building in initiatives in order to increase their impact on affordable housing and economic development in Illinois and Wisconsin. In November 2021, six organizations each received \$50,000 in partnership with our members to support marketing initiatives, technology enhancements, and staff training, among other uses.
- **Community First Awards:** These annual awards recognize members and their local partners for their work in building and strengthening communities. In 2021, nominations were accepted in four categories: Affordable Housing; Economic Development; Diversity, Equity, and Inclusion; and Emerging Leader.
- **Community First Disaster Relief Program:** This program offers relief grants to eligible homeowners and small businesses located in qualifying disaster areas. The grant funding is accessed and administered through our member institutions. We allocated \$450,000 in Relief Grant funds to support homeowners and small businesses impacted by severe storms in 28 Illinois communities in December 2021, to be disbursed in 2022.

In total, for the year ended December 31, 2021, we awarded \$50 million in grants under these programs, and cumulatively \$793 million since the inception of these programs in 1989.

COVID-19 Relief Advance

In April 2021, we announced a second interest-free COVID-19 Relief Advance program, following our initial COVID-19 Relief Program in 2020, available to all of our member institutions. The Bank offered members \$3.5 billion of subsidized, one year zero-rate advances, of which \$1.7 billion was drawn. Members were eligible to draw up to \$5 million each.

Our Commitment to Diversity, Equity, and Inclusion (DEI)

Diversity, equity, and inclusion are strategic business priorities for us. As part of our ongoing commitment to create positive change in our Bank and in the diverse communities our members serve, we continue to listen and learn through panel discussions on race, conversations focused on the racial wealth gap, access to housing and capital, and opportunities to learn about different cultures, as well as through meetings with our members. Through these engagements, we gained new perspectives and insights on how to enrich our culture, deepen our support for our members' communities, and become even more intentional in our commitment to diversity, equity, and inclusion.

The Community Investment Advisory Council consists of representatives from community and nonprofit organizations actively involved in providing or promoting affordable housing and/or community lending in Illinois or Wisconsin. The Community Investment Advisory Council meets quarterly with representatives from the Bank's Board of Directors and Bank staff to advise the Bank on ways we can better carry out our housing finance and community investment missions. In 2021, the Community



(Dollars in tables in millions except per share amounts unless otherwise indicated)

Investment Advisory Council built upon the work of the racial equity working group established in 2020 and engaged in four deep dive discussions on topics of critical importance with a nexus to both community investment and diversity, equity and inclusion.

We recognize that diversity increases capacity for innovation and creativity, equity ensures employees get what they need to be successful, and inclusion allows us to leverage the unique perspectives of our employees and strengthens our retention efforts. We initiated our commitment through the development and execution of a three-year diversity, equity, and inclusion strategic plan that includes metrics to measure our success and we report regularly on our performance to management and the Board of Directors. In addition, the FHFA's Office of Minority and Women Inclusion has adopted regulations and provides ongoing guidance, including through their annual examination, with respect to our promotion of diversity, equity, and inclusion.

Within Our Team

We have established an Office of Diversity, Equity, and Inclusion (ODEI) that encourages a workplace of conscious inclusion and a culture that promotes feedback, and diverse representation across our organization. In addition to dozens of annual employee-driven events and training sessions, here are a few ways we encourage diversity, equity, and inclusion within the Bank:

- **Diversity, Equity, and Inclusion Committee:** A diverse group of employees who meet quarterly to develop strategies that will garner support for our DEI initiatives. The group also monitors the Bank's progress against the goals established in the DEI strategy.
- **Employee Resource Groups (ERGs):** Employees with shared experiences and goals who volunteer to bring greater representation across the Bank through five ERGs, including African American, Latino, Women's, Global Diversity and Baby Boomer, all of which aim to enhance diversity and inclusion at the Bank.
- **Engagement Teams:** Our Book Club, Wellness Group, Financial Literacy Group, and CommuniTeam (a group that leads many of our charitable and volunteer opportunities) make up our Engagement Teams. They allow us to learn and connect with each other.
- **Working Groups:** Employees from all backgrounds, experiences, and job levels who collaborate to offer their perspectives and creative strategies around DEI. We currently have four working groups, including Workforce, Supplier Diversity, Culture and Community, and Capital Markets. Capital Markets promotes and supports the use of qualified diverse/minority-owned dealers in our capital markets transactions.
- **Cultural Explorations:** An annual, immersive experience where our Board of Directors, Executive Team, and randomly-selected employees learn together about a different culture and address barriers that may impact their access to equitable opportunities.

Governance

Board of Directors

Our Board of Directors is responsible for the overall management and oversight of the Bank. Our Board of Directors is composed of two types of directors: member directors and independent directors. As discussed in **Item 10. Directors, Executive Officers and Corporate Governance** on page 89, our member directors are nominated and elected by our member institutions, while our independent directors are nominated by our Board and elected by our member institutions. While we do not have a formal policy regarding Board diversity, our Board values diversity across a number of categories, including diversity of gender, race, and ethnicity, as well as professional backgrounds, and considers these attributes when nominating independent director candidates. Of the eight independent directors serving on our Board in 2022, five were in gender and/or racially diverse categories. We believe the diverse nature of our directors enhances the oversight and governance of our Bank. For more details on our Board of Directors, please see **Item 10. Directors, Executive Officers and Corporate Governance** on page 89.

Code of Ethics and Reporting

We are committed to the highest possible standards of honesty, integrity, impartiality, and conduct. These standards are essential to our business and foster confidence in our Bank and the FHLB System. To promote these ethical standards with our employees and our vendors, we maintain a Whistleblower Policy and Procedure and the Federal Home Loan Bank of Chicago Code of Ethics. A copy of our Whistleblower Policy and Procedures and Code of Ethics is published on our internet website.



(Dollars in tables in millions except per share amounts unless otherwise indicated)

Human Capital Resources

Our human capital is a significant contributor to the success of our strategic business objectives. In managing our human capital, the Bank focuses on its workforce profile, including the promotion of diversity, equity and inclusion as discussed above, as well as the various programs and philosophies described below.

Workforce Profile

Our workforce is primarily comprised of permanent employees, with our principal operations in one location. We also use consultants, independent contractors, and temporary employees in the normal course of our business. As of December 31, 2021, we had 458 full-time and 8 part-time employees. As of December 31, 2021, approximately 48% of our permanent workforce is female, 52% male, 61% White, and 39% People of Color. Our workforce historically has included a number of longer-tenured employees. We strive to both develop talent from within the organization and supplement with external hires. We believe that developing talent internally results in institutional strength and continuity and promotes loyalty and commitment in our employee base, which furthers our success, while adding new employees contributes to new ideas, continuous improvement, and our goals of a diverse and inclusive workforce. As of December 31, 2021, the average tenure of our employees was 8 years. During 2021, we generally experienced higher employee turnover and increased competition in hiring and retaining qualified personnel, as the ongoing COVID-19 pandemic brought about significant disruptions and changes to the U.S. labor market. See **Risk Factors** on page 22 for a discussion of these risks.

There are no collective bargaining agreements with our employees.

Total Rewards

We seek to attract, develop and retain talented employees to achieve our strategic business initiatives, enhance business performance and provide members a reasonable return on their investment in the Bank. We support this objective through a combination of development programs, benefits and employee wellness programs and recognizing and rewarding performance. Specifically, our programs include:

- Cash compensation that includes competitive salary and performance based incentives
- Benefits, including health insurance, life and AD&D insurance, supplemental life insurance, 401(k) retirement savings plans with employer match, and pension benefits
- Wellness program, including employee assistance program, health coaching, interactive education sessions, and sporting events sponsorship
- Time away from work, including time off for vacation, illness, personal, holiday, and volunteer opportunities
- Culture, including employee resource groups, philanthropic volunteer groups, and various diversity and inclusion initiatives
- Work/Life balance, including 100% paid salary continuation for short-term disability, family leave, new child leave, military leave, bereavement, jury duty and court appearances, flexible scheduling, and remote working options
- Development programs and training, including leadership development, educational assistance programs, internal educational and development opportunities, fee reimbursement for external educational and development programs, and incentive award goals for developmental activities
- Management succession planning, which includes the Bank's Board of Directors and leadership actively engaging in management succession planning, with a defined plan for key roles

Our performance management framework includes annual goal setting as well as mid-year and year-end performance reviews. Merit and incentive payments are differentiated for the Bank's highest performers.

We are committed to the health, safety, and wellness of our employees. In response to the COVID-19 pandemic, we have implemented significant operating environment changes, safety protocols, and procedures that we determined were in the best interest of our employees and members, and which comply with government regulations. During 2021, Bank staff transitioned from operating fully remote to operating in a hybrid environment, while continuing to fully serve members.



(Dollars in tables in millions except per share amounts unless otherwise indicated)

Oversight, Audits, and Legislative and Regulatory Developments

Regulatory Oversight

We are supervised and regulated by the FHFA, an independent federal agency in the executive branch of the U.S. government. The FHFA's operating and capital expenditures are funded by assessments on the FHLBs; no tax dollars or other appropriations support the operations of our regulator. To assess our safety and soundness, the FHFA conducts annual, on-site examinations as well as periodic on-site reviews. Additionally, we are required to submit monthly financial information on our condition and results of operations to the FHFA.

The Government Corporations Control Act, to which we are subject, provides that before a government corporation issues and offers obligations to the public, the Secretary of the Treasury (Secretary) shall prescribe the form, denomination, maturity, interest rate, and conditions of the obligations, the method and time issued, and the selling price. The FHLB Act also authorizes the Secretary discretion to purchase consolidated obligations up to an aggregate principal amount of \$4.0 billion. No borrowings under this authority have been outstanding since 1977.

We must submit annual management reports to Congress, the President, the Office of Management and Budget, and the Comptroller General. These reports include a statement of financial condition, a statement of operations, a statement of cash flows, a statement of internal accounting and administrative control systems, and the report of the independent public accounting firm on our financial statements.

Our business is subject to extensive regulation and supervision. As discussed throughout this Form 10-K, the laws, regulations, and regulatory guidance to which we are subject cover all key aspects of our business, and directly and indirectly affect our product and service offerings, collateral practices, pricing, competitive position and strategic plan, relationship with members and third parties, capital structure, cash needs and uses, and information security. As a result, such laws and regulations have a significant effect on key drivers of our results of operations, including, for example, our capital and liquidity, product and service offerings, risk management, and costs of compliance. For a discussion of risks relating to the complex body of laws and regulations to which we are subject, see **Risk Factors** on page 22. For a discussion of the impacts of recent regulatory and legislative developments, see **Recent Legislative and Regulatory Developments** on page 19.

Regulatory Audits

The Comptroller General has authority under the FHLB Act to audit or examine us and to decide the extent to which we are fairly and effectively fulfilling the purposes of the FHLB Act. Furthermore, the Government Corporations Control Act provides that the Comptroller General may review any audit of the financial statements conducted by an independent registered public accounting firm. If the Comptroller General conducts such a review, then the results and any recommendations must be reported to the Congress, the Office of Management and Budget, and the FHLB in question. The Comptroller General may also conduct a separate audit of any of our financial statements.

Recent Legislative and Regulatory Developments

Regulatory Interpretation on Eligibility of Mortgage Participations as Collateral for FHLB Advances

On October 4, 2021, the FHFA published a regulatory interpretation on the eligibility of mortgage loan participations as collateral for FHLB advances, which interpretation became effective on December 13, 2021. The interpretation provides the FHFA's views on whether an FHLB can accept mortgage loan participations as collateral to secure advances that cannot be readily liquidated in the form in which they are to be pledged. The interpretation rescinds prior guidance to the contrary and concludes that participations for which there would be a known impediment to liquidation are not eligible collateral for advances. The interpretation also provides that known impediments to liquidation include, among other possible reasons, instances when such participations:

- are not in salable form; and/or
- lack a viable secondary market.

Although we do not currently expect the Regulatory Interpretation to have a material impact on our financial condition or results of operations, this restriction on collateral may negatively impact future borrowing by certain members.



(Dollars in tables in millions except per share amounts unless otherwise indicated)

FHLB Membership Supervisory Letter

On September 9, 2021, the FHFA published a supervisory letter addressing certain FHLB membership issues, including:

- requirements for de novo CDFIs;
- automatic transfer of membership;
- large non-member institutions merging with small member institutions;
- membership applicant's compliance with financial condition requirements, and
- the definition of insurance company.

The FHFA issued the letter to provide uniform guidance regarding the identified membership issues. The guidance could result in:

- fewer opportunities for FHLB membership; and/or
- ineligibility for continued membership by insurance companies.

Accordingly, this guidance could result in reduced opportunities for us to grow our membership and, in turn, fewer opportunities to provide our financial services. We continue to monitor and evaluate the guidance's impact on our existing members.

Fair Housing and Fair Lending Enforcement

On July 9, 2021, the FHFA published a policy statement on fair lending to communicate the FHFA's general position on monitoring and information gathering, supervisory examinations, and administrative enforcement related to the Equal Credit Opportunity Act, the Fair Housing Act, and the Federal Housing Enterprises Financial Safety and Soundness Act. On August 12, 2021, the FHFA and the Department of Housing and Urban Development announced they had entered into a memorandum of understanding regarding fair housing and fair lending enforcement. Under the memorandum of understanding, the two agencies will focus on enhancing their enforcement of the Fair Housing Act, and their oversight of Fannie Mae, Freddie Mac, and the FHLBs. We continue to monitor these actions and guidance as they evolve and to evaluate their potential impact.

Amendments to U.S. Treasury and Fannie Mae Preferred Stock Purchase Agreement

On January 14, 2021, the U.S. Treasury and Fannie Mae entered into a letter agreement amending the terms of their preferred stock purchase agreement, which could impact PFIs that participate in the MPF Program's MPF Xtra product (where MPF loans acquired are concurrently sold to Fannie Mae). Under the preferred stock purchase agreement, the U.S. Treasury provides liquidity to Fannie Mae in exchange for senior preferred stock. Under the preferred stock purchase agreement amendment, which was originally to take effect on January 1, 2022, the FHFA (as conservator for Fannie Mae) and the U.S. Treasury agreed to limit the dollar volume of loans Fannie Mae could purchase from a single seller through Fannie Mae's cash window to \$1.5 billion per year. As administrator of the MPF Program, the Bank purchases MPF Xtra loans from PFIs and sells them to Fannie Mae via the cash window process. Based on recent volumes for the MPF Xtra product, the preferred stock purchase agreement amendment would significantly curtail MPF Xtra cash window sales. On September 14, 2021, the FHFA and the U.S. Treasury temporarily suspended certain provisions of the Preferred Stock Purchase Agreement, including limits on Fannie Mae's cash window, until at least September 14, 2022. Although we do not currently expect the cash window limits to have a material impact on our financial condition or results of operations, they may negatively impact the volume of loans that PFIs are able to sell through the MPF Program unless we are successful in our efforts to develop a solution prior to reinstatement of the limits.

Amendment to FINRA Rule 4210: Margining of Covered Agency Transactions

The Financial Industries Regulatory Authority ("FINRA") amended FINRA Rule 4210 delaying the effectiveness of margining requirements for covered agency transactions until April 26, 2022 (from the original effective date of January 26, 2022). On March 3, 2022, the SEC approved an extension of the implementation date of the amendments to October 26, 2022. Once the margining requirements are effective, we will be required to collateralize our transactions that are covered agency transactions, which include to be announced transactions ("TBAs"). These collateralization requirements could have the effect of reducing the overall profitability of engaging in covered agency transactions, including TBAs. We do not expect this rule to have a material effect on our financial condition or results of operations.



(Dollars in tables in millions except per share amounts unless otherwise indicated)

CFTC and Other Derivatives Developments

The Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act), which was signed into law in July 2010, enacted numerous legal and regulatory changes for the financial services industry, which have been gradually implemented over the ensuing years.

The Dodd-Frank Act mandated the U.S. federal regulation of the over-the-counter (OTC) derivatives market and granted new joint regulatory authority to the SEC and the U.S. Commodity Futures Trading Commission (CFTC) over OTC derivatives. The SEC and CFTC have completed most of their rules to implement the Dodd-Frank Act's requirements. Pursuant thereto, our derivatives operations have become subject to, among other things, new recordkeeping, reporting and documentation requirements. In addition, certain non-cleared derivatives entered into as part of our derivatives operations have become subject to two-way variation margin requirements and may become subject to two-way initial margin requirements beginning in 2022. These margining requirements are expected to increase the cost of non-cleared derivatives. Collectively, the Dodd-Frank Act requirements have increased the direct and indirect costs of our hedging and related activities and will likely increase them further in the future. We do not expect these costs to have a material impact on our financial condition or results of operations.

COVID-19 Presidential, Legislative and Regulatory Developments

In light of the COVID-19 pandemic, the Presidents of the United States, through executive orders, governmental agencies, including the SEC, OCC, Federal Reserve, FDIC, National Credit Union Administration, CFTC and the FHFA, as well as state governments and agencies, have taken, and may continue to take, actions to provide various forms of relief from, and guidance regarding, the financial, operational, credit, market, and other effects of the pandemic, and the Congress has enacted and may continue to enact pandemic relief legislation, some of which may have a direct or indirect impact on the Bank or its members. Many of these actions are temporary in nature. We continue to monitor these actions and guidance as they evolve and to evaluate their potential impact on us.

Other Legislative Matters

Affordable Housing and Community Investment

As previously disclosed, legislation has been introduced in the U.S. Senate and House of Representatives that, if enacted in its proposed form, would require that the FHLBs set aside higher percentages of their earnings for their affordable housing and community investment programs than is currently required by law. Increased contributions to these programs would result in less net income being available for other purposes. The FHLBs continue to actively monitor any such potential legislation and developments.

Taxation and AHP Assessments

We are exempt, by statute, from all federal, state, and local taxation except for real estate property taxes, which are a component of our lease payments for office space or on real estate we own as a result of foreclosure on MPF Loans. In lieu of taxes, we set aside funds for our AHP at a calculated rate of 10% of income before assessments. For details on our assessments, see **Note 11 - Affordable Housing Program** to the financial statements. For details on potential legislation that would require that the FHLBs set aside higher percentages of their earnings for their affordable housing and community investment programs than is currently required by law, see **Recent Legislative and Regulatory Developments** on page 19.



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Item 1A. Risk Factors.

Business Risks

The COVID-19 pandemic and related developments created substantial economic and financial disruptions and uncertainties, which could increase many of the risks we face, or introduce new risks, and adversely affect our business, financial condition, and results of operation.

The COVID-19 pandemic, and governmental and public actions taken in response created substantial uncertainty about the overall economic environment. In addition, the COVID-19 pandemic and related developments resulted in substantial disruptions and volatilities in the financial markets. Despite significant improvements in the overall U.S. economy since the initial effect of the COVID-19 pandemic, uncertainty remains on the pace and durability of the recovery. There are no comparable recent events that provide guidance as to the long-term effects. As a result, the ultimate effect of the pandemic is highly uncertain. This could increase many of the risks we face, or introduce new risks, and adversely affect our business, financial condition, and results of operation.

Adverse economic conditions, or periods of economic disruptions or uncertainties, as a result of the COVID-19 pandemic could: adversely affect demand for Bank products and FHLB debt; impair our ability to maintain an appropriate liquidity and funding balance between our assets and liabilities; cause our counterparties to fail to meet their obligations to us; reduce the lendable value of collateral pledged to secure member credit; increase credit losses, including as a result of increased forbearances granted by Bank members and PFIs to borrowers, or as a result of mortgage servicer failures; reduce the fair value of the Bank's investments; and lead to disputes, including litigation, related to business decisions made as a result of disruptions or uncertainties. Additionally, the effects of the COVID-19 pandemic on overall funding costs may continue to cause compression in net interest margin if returns on our liquidity asset portfolio also decline. Moreover, inflation and supply chain disruptions resulting from the impact of the COVID-19 pandemic could negatively impact our members' businesses and our business.

To mitigate the adverse effects of the COVID-19 pandemic, the U.S. federal government and its agencies instituted various responsive policies and actions, such as fiscal stimulus and rate cuts. Any such actions and policies (and any future actions and policies) may directly and indirectly influence: interest rates on the Bank's assets and liabilities; the cost or demand for FHLB debt or our advances; or extension risks or prepayment on our MPF Loans and investments with associated refunding or reinvestment risks, which could adversely affect our financial condition and results of operations. Additionally, the Federal Reserve's emergency actions to increase liquidity, along with additional liquidity from stimulus actions have resulted in lower demand for new advances from our depository members and prepayment of their existing advances. To the extent this trend continues or escalates, our financial condition and results of operation could be adversely impacted.

The extent to which the COVID-19 pandemic will affect or will continue to affect our business, financial condition, and results of operations is unpredictable and evolving. There is uncertainty in: the pandemic's scope and duration; the continued effectiveness of our business continuity plan; the direct and indirect impact on our workforce and board of directors, our members, our counterparties and service providers, as well as other market participants; any governmental authorities and other third parties' actions taken in response to the COVID-19 pandemic (or the expiration or reversal of prior actions); the pace and durability of recovery when the pandemic subsides; and the long-term impact of the pandemic on our and our members' businesses. Adverse developments with respect to any of these factors could have a material adverse impact on the Bank's financial condition and results of operation.

Our business and results of operations may be adversely affected by the U.S housing and mortgage markets, as well as other economic conditions, and related U.S. government policies.

Our business and results of operations are sensitive to the U.S. housing and mortgage markets, as well as international, domestic and district-specific markets and other economic conditions. For example, adverse trends in the mortgage lending sector and residential real estate sector, including declines in housing prices or deterioration in loan performance trends, could reduce the value of collateral pledged to secure member credit. These trends could also lead to a reduction in the fair value of the Bank's investments and MPF Loan portfolio, could adversely affect demand for Bank products, and could cause members to default on their credit obligations to us. Moreover, adverse trends in employment levels, a slowdown in regional or national economic activity, prolonged inflation, geopolitical instability or conflicts (including the recent outbreak of hostilities between Russia and Ukraine), trade disruptions, economic or other sanctions, or a sustained capital market correction could adversely affect overall economic conditions, and in turn result in adverse consequences in our or our members' businesses. If economic and market conditions deteriorate, the Bank's financial condition, results of operation, ability to pay dividends, meet dividend guidance, or redeem or repurchase capital stock could be adversely impacted.

Our business and results of operations are also affected by the fiscal and monetary policies and actions of the federal government and its agencies in response to changing economic conditions, including the Federal Reserve, which regulates the



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supply of money and credit in the United States. Any federal government actions and policies, including rate cuts/hikes, stimulus measures, or quantitative tightening/easing programs, may directly and indirectly influence interest rates on the Bank's assets and liabilities, the demand for FHLB debt or advances, or prepayment on our MPF Loans and investments with associated reinvestment risks, all of which could adversely affect our financial condition, results of operations, and ability to pay dividends. Additionally, federal government actions, including actions discussed in **Recent Legislative and Regulatory Developments** on page 19, may impact our business.

The Bank and our members are subject to and affected by a complex body of laws and regulations, which could change or be applied in a manner detrimental to our business operations and adversely affect our financial condition.

We are a GSE created by the FHLB Act of 1932 and are governed by Federal laws and the regulations of the FHFA. From time to time, Congress has amended the FHLB Act and other laws affecting the FHLBs. These changes, as well as modifications to regulations or guidance adopted by the FHFA or other agencies could have a negative effect on our net income or our ability to conduct business (including our ability to adapt to changing conditions) or may change our business operations.

The FHFA's extensive regulatory authority over the FHLBs includes the authority to liquidate, merge, consolidate, or redistrict the FHLBs. With respect to an FHLB merger or consolidation, members will be subject to the terms and conditions of any plan of merger and/or terms established or approved by the FHFA. Likewise, members' rights in a liquidation will be subject to approval of the FHFA and may be inconsistent with our capital plan. The FHFA also has authority over FHLB liquidity and capital requirements, and authority over the scope of permissible FHLB products and activities (including the authority to impose limits on, or restrict member access to, those products and activities). We cannot predict the extent to which future FHFA rule changes or guidance could impact our business or our members.

Changes in our statutory or regulatory requirements or policies or in their application could result in changes in, among other things: our membership base and membership eligibility; our members' access to our products and services; our cost of funds; liquidity requirements; retained earnings and capital requirements; accounting policies; debt issuance limits; dividend payments; capital redemption and repurchase practices; permissible business activities; product pricing and structure; collateral practices; compliance requirements; operational processes; demand for our products; the size, scope, or nature of our lending, investment and MPF Program activities; how we manage our balance sheet; or contributions under our affordable housing programs; all and any of which could be detrimental to our business operations and financial condition. See **Recent Legislative and Regulatory Developments** on page 19 for more information about recent regulatory developments, including legislation that would require that the FHLBs set aside higher percentages of their earnings for their affordable housing and community investment programs than is currently required by law.

In addition, as Congress and the Administration continue to consider reforms to the U.S. housing finance system, including the resolution and/or restructuring of Fannie Mae and Freddie Mac, any legislative proposals or administrative actions could directly or indirectly impact GSEs that support the U.S. housing market, including the FHLBs. Moreover, other political changes and trends, new or modified legislation, or regulations governing or impacting our members and counterparties may affect our ability to conduct business or cost of doing business.

We face competition for advances, which could adversely affect our business.

Our primary business is making advances to members. We compete with other suppliers of wholesale funding, both secured and unsecured, including investment banks, commercial banks, the Federal Reserve, and, in certain circumstances, other FHLBs with which members have a relationship through affiliates. Changes to legislation or regulations affecting our members, changes to our members' business models, or the availability of alternative funding sources, may negatively affect our advance levels. Moreover, if we are unable to structure our advance products, collateral requirements, and pricing to satisfy the specific funding requirements of all members, our members may turn to other sources of liquidity and our advance levels could decrease.

We may make changes in policies, programs, and agreements affecting members' access to advances and other credit products, the MPF Program, the AHP, and other programs, products, and services. As a result, some members may choose to obtain financing from alternative sources. Further, many competitors are not subject to the same regulations as we are, which may give those businesses a competitive advantage, such as the ability to offer different and potentially more attractive products and terms. Any change made in pricing our advances to compete with these alternative funding sources may decrease our profitability. Additionally, as we manage our refunding risk and maintain compliance with our liquidity requirements and other regulatory guidance, any resulting increase in advance pricing may decrease demand for our advances. State and federal regulators' perception of the stability and reliability of our advances can also directly impact the amount of advances used by our members. A decrease in advance demand or a decrease in profitability on advances could adversely impact our financial condition and results of operations.



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The loss of key personnel or difficulties recruiting and retaining qualified personnel could adversely impact our business and financial results.

Much of our future success depends on the continued availability and service of senior management and other qualified personnel, the loss of whom could harm our business. Additionally, we must continue to recruit, retain and motivate a qualified and diverse pool of employees to maintain our current business and to execute our strategic initiatives. Competition from within the financial services industry and from businesses outside the financial services industry, including the technology industry, for qualified personnel often has been intense. For instance, we generally experienced higher employee turnover and increased competition in hiring and retaining qualified personnel in 2021, as the ongoing COVID-19 pandemic brought about significant disruptions and changes to the U.S. labor market. If we are unable to recruit, retain and motivate high-caliber employees to maintain our current business and support our projected growth, our business and financial performance may be adversely affected.

Our and our members' inability to adapt to a rapidly evolving financial services industry amid a highly competitive and regulated landscape, while managing expenditures, could harm our business.

Our and our members' success depends on the ability to adapt to evolving industry standards and to meet customer needs, particularly amid a highly competitive and regulated landscape that may impact our and our members' ability to effectively respond to changing market conditions. If we or our members are unable to adopt new technologies or improve our technological capabilities, including managing costs and retaining key technology personnel, we and our members may not be able to remain competitive and our businesses, financial conditions, and results of operations may be significantly compromised. We and our members are also faced with increasing operating costs in managing cybersecurity risks. We and our members may not be successful in developing or introducing new products, technologies, systems, and services to keep pace with larger competitors, in integrating new products, systems, or services into existing platforms, in responding or adapting to changes in customer behavior or preferences, and in reducing costs, all of which may harm our business and results of operations.

Reduced business activities with significant members or the loss of such members could result in lower demand for our products and services, and negatively impact our financial condition and results of operation.

Due to the nature of our charter, membership in our Bank is generally limited to federally-insured depository institutions, insurance companies, credit unions and community development financial institutions located in Illinois and Wisconsin. Given this limitation in membership eligibility, decreased business activities with large members or the loss of such members could negatively impact our financial condition and results of operation.

At December 31, 2021, our five largest advance borrowers held 46.3% of total advances outstanding. Advance balances with our largest members and our other members could change due to factors such as a change in member demand or borrowing capacity, regulatory changes, market conditions, or the competitive factors discussed herein or otherwise. If, for any reason, we experience sustained decreases in business with our largest members, including as a result of prepayments, or if we lose such members, our financial condition and results of operations could be negatively impacted. As discussed above, increased liquidity from the Federal Reserve's actions in response to the COVID-19 pandemic and government stimulus actions have resulted in lower demand for advances from our large depository members and prepayment of their existing advances.

In addition, our captive insurance company members had their membership terminated in February 2021 as a result of regulatory changes. At December 31, 2021, these former captive insurance company members had \$11 billion of advances outstanding, with a remaining weighted tenor of approximately 2.14 years which constituted 23% of our outstanding advances as of December 31, 2021. Once these captive insurance company advances mature, our advance and capital stock levels could decrease, which could decrease the scale of our balance sheet and capacity for investments, if not replaced by business from other members.

Moreover, various factors, including regulatory requirements, have contributed to increased consolidation in the financial services industry, and could reduce current and potential Bank members. For example, depository institutions continue to experience consolidation due to, among other things, increased regulatory burden, greater competition from non-bank "Fintech" companies, lower interest margin, and/or higher technology costs that incentivize scale. If for any reason, we were to lose a member or members whose business and capital stock investments are significant to our business, our financial condition and results of operations could be negatively impacted.

To the extent that the reduced demand for our products by depository members, the loss of business with our former captive insurance company members, or reduced demand as a result of further industry consolidation is not replaced by demand from our other members, or to the extent we are unable to sustain or increase our current business with our insurance company members, the growth of which has offset recent decreases in advance demand from other members, our results of operations, primary mission asset ratio and supplemental mission asset ratio may be negatively impacted.



(Dollars in tables in millions except per share amounts unless otherwise indicated)

Failure to meet minimum regulatory capital requirements and guidance could affect our ability to conduct business and could adversely affect our earnings.

We are subject to certain minimum capital requirements under the FHLB Act, and the FHFA rules and regulations that include total capital, leverage capital, and risk-based capital requirements. If we are unable to satisfy our minimum capital requirements, we could be subject to certain capital restoration requirements and prohibited from paying dividends and redeeming or repurchasing capital stock without the prior approval of the FHFA, which could adversely affect members' investment in our capital stock. Furthermore, any suspension of dividends and/or capital stock repurchases and redemptions could decrease member confidence, which in turn could reduce advance demand and net income should members elect to use alternative sources of wholesale funding. For further discussion of our minimum regulatory capital requirements, see **Note 12 - Capital and Mandatorily Redeemable Capital Stock (MRCS)** to the financial statements.

Additionally, FHFA guidance regarding our capital stock levels relative to total assets and our retained earnings and dividend policy has impacted how we manage our balance sheet, which could adversely affect our business and members' investment in our stock. For a discussion of our retained earnings and dividend policy, see **Retained Earnings and Dividend Policy** section on page 66.

Changes in the perception, status or regulation of GSEs and the related effect on debt issuance could reduce demand or increase the cost of the FHLBs' debt issuance and adversely affect our earnings.

The FHLBs are GSEs organized under the authority of the FHLB Act. Negative news articles, industry reports, and other announcements relating to any GSE could create pressure on debt pricing for all GSEs, as investors could perceive such instruments as bearing increased risk. Moreover, the scope, timing, and effect of any regulatory reform affecting the GSEs, including the ultimate resolution to the conservatorship of Fannie Mae and Freddie Mac, could have a significant effect on the FHLB system and could negatively change the perception of the risks associated with the GSEs and their debt securities. Any such negative information or other factors could result in the FHLBs having to pay a higher rate of interest on consolidated obligations to make them attractive to investors, which could negatively affect the FHLBs' results of operations or access to funding.

How successfully we are able to manage our balance sheet in the face of factors such as changes in the economic environment, changes in member demand, or increased guidance from our regulator may have a material adverse effect on our results of operations and financial condition.

If the composition of our balance sheet significantly changes, whether as a result of the economic environment or other factors like member demand, we would be presented with challenges. If we are unable to successfully maintain our balance sheet and cost infrastructure at an appropriate composition and size scaled to member demand, including as a result of the regulatory limitations described below, our results of operations and financial condition may be negatively impacted.

Regulatory guidance from the FHFA, our regulator, may have an effect on how we manage our balance sheet and cost infrastructure, and may limit our ability to effectively adapt to changing conditions. The following are examples of regulatory guidance that constrains our balance sheet management and operations:

- We are subject to a mission asset ratio requirement, as further described on page 5, which may impact our ability to make new investments through various advance demand cycles.
- We are subject to guidance providing for each FHLB to maintain a ratio of at least two percent of capital stock to total assets, which may impact how we manage our capital and investments.
- As further discussed in **Liquidity Measures** on page 54, we are subject to the Liquidity AB. Under certain market conditions, the Liquidity AB may require us to hold additional liquid assets. Maintaining large balances of liquid assets may reduce our ability to invest in higher-yielding assets, and may in turn negatively impact net interest income. Additionally, to the extent that the Bank adjusts pricing for its short-term advances and letters of credit as a result of the Liquidity AB, these products may become less competitive, which may adversely affect advance, and capital stock and letters of credit levels, and ultimately our net income. Moreover, in certain circumstances we may need to fund overnight or shorter-term investments and advances with discount notes that have maturities that extend beyond the maturities of the related investments or advances. Net interest income on investments and advances may be reduced as a result of these requirements. Additionally, as discussed in **Liquidity Measures** on page 54, Liquidity AB provides guidance on maintaining appropriate funding gaps, compliance with which, may increase our cost of funding, and may ultimately result in a reduction in our net interest income on investments and advances.



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Limitations on the payment of dividends and repurchase of excess capital stock, any reduction in dividend levels, failure to meet our dividend guidance or the cessation of dividend guidance in the future, or future changes to our capital stock requirements may adversely affect our business.

Our business model is based on the goal of maintaining a balance between our housing mission and our objective to provide a reasonable return on our members' investment in the cooperative. We work to achieve this balance by delivering low-cost credit to help our members meet the credit needs of their communities while striving to pay a reasonable dividend on our Class B2 membership stock and a higher dividend on Class B1 activity stock in order to recognize those members that are using our products. See **Dividend Payments** on page 66.

Under FHFA regulations, the FHLBs may pay dividends on their stock only out of previously retained earnings or current net income, and our ability to pay dividends is subject to statutory and regulatory restrictions and dependent upon our ability to generate net income. Further, the level of our dividend payments is restricted by our retained earnings and dividend policy as further described under **Retained Earnings and Dividend Policy** section on page 66. Relatedly, our ability to meet or provide any dividend guidance may be impacted by a change in financial or economic conditions, regulatory and statutory limitations, and any other relevant factors. As a result of these factors, we may be unable to pay dividends, unable maintain a higher dividend on Class B1 activity stock, unable to meet or provide any dividend guidance, or the level of dividends could be significantly reduced.

To the extent that current and prospective members determine that our dividend and/or dividend guidance are insufficient or our ability to pay future dividends or repurchase excess capital stock becomes limited (as further discussed in the risk factor on limitations on our ability to repurchase excess stock), we may be unable to expand our membership, or lose members, or we may experience decreased member demand for products requiring capital stock purchases, which may in turn adversely affect our results of operations and financial condition.

Changes in our current capital stock requirements, the extent to which we are able to continue to offer the Reduced Capitalization Advance Program ("RCAP") (which reduces a member's activity stock requirement for certain advances), or the extent to which we effect future changes to our Capital Plan (including our capital stock requirements or caps), may impact member utilization of the Bank, which in turn may adversely affect our results of operations and financial condition.

Our MPF Program relies on the participation of other FHLBs and their PFIs, and the loss of any such participants may impact our results and operation and business. A decline or shift in national mortgage originations and the competitive and highly regulated landscape may also negatively impact our MPF Program and the related business.

The MPF Program is a secondary mortgage market business under which we purchase mortgage loans from our PFIs and PFIs of other FHLBs for on- and off-balance sheet products (together with us, the MPF Banks). We also provide programmatic and operational support in our role as the administrator of the MPF Program on behalf of the other MPF Banks for a fee. Accordingly, the success of the program depends not only on the participation of our PFIs, but also on the participation of other MPF Banks as well as their PFIs. To the extent an insufficient number of FHLBs and their PFIs choose to participate in the MPF Program, net revenues may decline and ultimately negatively impact our results of operation and business.

During 2021, the top five PFIs, in the aggregate, accounted for 23% of our MPF on balance sheet purchases held in portfolio. To the extent we lose our business with these PFIs and cannot attract comparable replacements, our business may be adversely affected.

To the extent that the decline in national mortgage originations continues we may experience a decrease in volume available to purchase from our PFIs. There has also been a shift from a mortgage loan refinancing market, in which our PFIs are more active, to a purchase market, in which our PFIs have been historically less active, and accordingly, we may incur a decrease in volume available to purchase from our PFIs. In addition, PFIs may stop selling loans into the MPF Program due to mergers with or into other organizations, or as a result of market competition. To the extent a sufficient number of our PFIs experience a decline in new mortgage originations or discontinue selling into the MPF Program, and we do not gain a sufficient number of new PFIs to offset such decline or departures, we may incur a decrease in volume available to purchase from our PFIs, resulting in a decline in MPF Program volume.

In connection with managing the overall composition of our balance sheet, we place volume caps limiting the dollar value of MPF Traditional loans PFIs can sell into the MPF Program. Since these volume caps often fluctuate with the size of the Bank's overall balance sheet assets, the ability to continue acquiring new loans may be impacted if there are unanticipated shifts in advances demand or large advance prepayments occur. We may not be able to provide sufficient notice to PFIs who would need to find an alternate delivery channel if the volume caps are enforced. Further, to the extent FHFA regulation or guidance necessitates changes to MPF Traditional loans products, this could have a negative impact on the volume of loans sold into the MPF Program.



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Investors in off-balance sheet MPF products may change or institute new requirements that could negatively impact our MPF Program and the related business.

Investors for our off-balance sheet MPF products could institute product changes or pricing, limit the volume of loans we can sell, or require operational enhancements, any of which could have a negative impact on the MPF Program. For example, Fannie Mae may institute volume caps on the dollar value of MPF Xtra loans the MPF Program can sell to Fannie Mae through Fannie Mae's cash window (as further discussed in **Recent Legislative and Regulatory Developments** on page 19). To the extent we cannot offset the effects of these limitations with increased loan purchases from other PFIs, product enhancements, or through development of new channels, our business may be negatively impacted.

Restrictions on the redemption, repurchase, or transfer of our capital stock could result in an illiquid investment for the holder.

Under the GLB Act and FHFA regulations, and our Capital Plan, our capital stock is subject to redemption upon the expiration of a five-year redemption period. Only capital stock in excess of a member's or former member's minimum investment requirement that was subject to a redemption request, capital stock of a member that has submitted a notice to withdraw from membership, or capital stock held by a member whose membership has been terminated may be redeemed at the end of the applicable redemption period. Further, we may elect to repurchase excess stock from time to time at our sole discretion without regard to the five-year redemption period.

There is no guarantee that we will be able to redeem capital stock held by a shareholder even at the end of the redemption period or to repurchase excess capital stock. FHFA regulations and our Capital Plan restrict us from redeeming or repurchasing capital stock under certain scenarios, including in instances where the redemption or repurchase would cause us to fail to meet our minimum capital requirements. For additional information on limitations on our ability to repurchase or redeem capital stock, see **Statutory and Regulatory Restrictions on Capital Stock Repurchase and Redemption** on page 64.

In addition, since our capital stock may only be owned by our members (or, under certain circumstances, former members and successors), and our Capital Plan requires Bank approval before any transfer of capital stock, we cannot provide assurance that members would be allowed to transfer excess capital stock at any time.

For further discussion of our minimum capital requirements, see **Note 12 - Capital and Mandatorily Redeemable Capital Stock (MRCS)** to the financial statements.

Market Risks

Changes in interest rates or an inability to successfully manage interest-rate risk could have a material adverse effect on our net interest income.

We realize net interest income primarily from the spread between interest earned on our outstanding advances, MPF Loans, and investments less the interest paid on our consolidated obligations and other liabilities. When interest rates increase, we may experience extension risk, which is the risk that our mortgage-based investments will remain outstanding longer than expected at below-market yields. Therefore, any rapid change in interest rates could adversely affect our net interest income. Conversely, a very low interest-rate environment could adversely impact us in various ways, including lower market yields on investments and faster prepayments on our MPF Loans and investments with associated premium write-offs and reinvestment risk. These risks are increased to the extent we have concentrations of high mortgage interest rates, concentrations of loan vintages or geographic concentrations. Our investment income and, in turn, our financial condition and results of operations, could be adversely impacted as a result. See **Item 7A. Quantitative and Qualitative Disclosures About Market Risk** on page 81 for additional discussion and analysis regarding our sensitivity to interest rate changes and the use of derivatives to manage our exposure to interest-rate risk.

As previously discussed, our business and results of operations are affected significantly by the fiscal and monetary policies of the U.S. government and its agencies, including the Federal Reserve Board's policies, which are difficult to predict. Therefore, our ability to anticipate changes regarding the direction and speed of interest rate changes, or to hedge the related exposures, significantly affects the success of our asset and liability management activities and our level of net interest income. We use a number of measures in our efforts to monitor and manage interest rate risk, including income simulations, market value sensitivity analysis, duration and convexity measurements and scenario analysis. Given the unpredictability of the financial markets, capturing all potential outcomes in these analyses is difficult. Key assumptions include, but are 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. These assumptions are inherently uncertain and they cannot precisely estimate net interest income and the market value of equity. Actual results will differ from simulated results due to the timing, magnitude, and frequency of interest rate changes and changes in market conditions, management strategies, and



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regulatory changes, among other factors. Volatility and disruption in the markets may have resulted in a higher level of volatility in our interest-rate risk profile and could negatively affect our ability to management interest-rate risk effectively.

We depend on the FHLBs' ability to access the capital markets in order to fund our business.

Our primary source of funds is the sale of FHLB consolidated obligations in the capital markets, including the short-term capital markets due to our continued reliance on discount note funding. Our ability to obtain funds through the sale of consolidated obligations depends in part on prevailing market conditions, such as investor demand and liquidity in the financial markets, which are beyond the control of the FHLBs. The U.S. government's financial or economic measures may also affect the FHLBs' funding costs and practices. Our ability to operate our business, meet our obligations, and generate net interest income depends primarily on the ability of the FHLB System to issue debt in sufficient amounts to meet member demand and to refinance our existing outstanding consolidated obligations at attractive rates, maturities, indices, and call features, when needed. A significant portion of our advances are issued at interest rates that reset periodically at a fixed spread to an FHLB discount note rate-based index, so member demand for such advances may decrease to the extent that the FHLB System is unable to continue to issue debt at attractive rates.

The sale of FHLB consolidated obligations can also be influenced by factors other than conditions in the capital markets, including legislative and regulatory developments, civil unrest, geopolitical instability or conflicts, government actions, and the impact of government shutdowns that affect the relative attractiveness of FHLB consolidated obligations. For example, past money market fund reforms have contributed to increased demand for FHLB consolidated obligations. As policymakers examine measures intended to improve the resilience of money market funds and broader short-term funding markets, including in response to the impact of the COVID-19 pandemic, any resulting regulatory changes could decrease money market demand for FHLB consolidated obligations, and in turn could have a negative effect on our financial condition and results of operations. The FHLB System currently plays 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 have an adverse effect on our cash management activities, results of operation, and reputation. In addition, a decrease in the level of dealer participation and support may also adversely affect liquidity in the agency debt markets and have an adverse effect on our results of operations.

Additionally, we have a significant amount of discount notes outstanding with maturities of one year or less. We are exposed to liquidity risk if there is any significant disruption in the short-term debt markets. If a disruption were prolonged, we may not be able to obtain funding on acceptable terms. Any significant disruption that would prevent us from re-issuing discount notes for an extended period of time as they mature may require us to recognize a loss of up to \$10 million of currently open (as of December 31, 2021) deferred hedge costs out of accumulated other comprehensive income. Without access to the short-term debt markets, the alternative longer-term funding, if available, would increase funding costs and could cause us to increase advance rates, potentially adversely affecting demand for advances. If we cannot access funding when needed on acceptable terms, our ability to support and continue operations could be adversely affected. As a result, our inability to manage our liquidity position or our contingency liquidity plan to meet our obligations, as well as the credit and liquidity needs of our members, could adversely affect our financial condition and results of operations, and the value of FHLB membership.

The FHLBs also compete with the U.S. government, Fannie Mae, Freddie Mac, and other government-sponsored enterprises (GSEs), as well as corporate, sovereign, and supranational entities, including the World Bank, for funds raised through the issuance of unsecured debt in the domestic and global debt markets. Increases in the supply of competing debt products, such as an increased in the supply of Treasury securities, could result in higher debt costs and negatively affect demand for consolidated obligations. This could adversely affect our financial condition, results of operations, or ability to pay dividends, meet dividend guidance, or redeem or repurchase capital stock.

Our funding costs and/or access to the capital markets and demand for certain of our products could be adversely impacted by any changes in the credit ratings for FHLB System consolidated obligations or our individual credit ratings.

FHLB System 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 change a rating or outlook or issue negative reports. Because all of the FHLBs have joint and several liability for all FHLB consolidated obligations, negative developments at any FHLB may adversely affect these credit ratings or result in the issuance of a negative report regardless of the financial condition and results of operations of the other FHLBs. In addition, because of the FHLBs' GSE status, the credit ratings of the FHLB System, the FHLBs, and consolidated obligations are directly influenced by the long-term sovereign credit rating of the U.S. government, which may be downgraded for reasons such as failure to address statutory debt limits. If the U.S. sovereign credit ratings or outlooks are downgraded, similar downgrades in the credit ratings or outlook of the FHLBs and FHLB System consolidated obligations would mostly likely occur even though they are not obligations of, or guaranteed by, the United States.

Future downgrades in credit ratings or outlook may: result in higher FHLB funding costs, higher volatilities, and/or other



(Dollars in tables in millions except per share amounts unless otherwise indicated)

disruptions in access to the capital markets; disrupt our ability to maintain adequate liquidity; trigger additional collateral posting requirements; impact our ability to enter into derivative instruments with acceptable terms; or weaken demand for products like letters of credit. Any such events may adversely affect our financial condition and results of operations.

Changes to, and replacement of, the LIBOR benchmark interest rate could adversely affect our business, financial condition and results of operations.

In 2017, the United Kingdom's (U.K.) Financial Conduct Authority (FCA) announced its intention to cease sustaining the LIBOR indices after 2021. On March 5, 2021, the FCA announced that 1 week and 2 month USD LIBOR would cease to be provided after December 31, 2021, and the remaining USD LIBOR tenors would cease to be provided or no longer be representative immediately after June 30, 2023. The FCA announced that it would consult whether to require LIBOR's administrator (the Intercontinental Exchange Benchmark Administration Limited (ICE)) to publish certain frequently used USD LIBOR tenors on a non-representative, synthetic basis after such date. FCA's announcement constitutes an index cessation event under the International Swaps and Derivatives Association's (ISDA) 2020 IBOR Fallbacks Protocol and IBOR Fallbacks Supplement, and as a result the fallback spread adjustment is fixed as of the date of the announcement. We do not have assets indexed to the 1 week and 2 month USD LIBOR, but many of our assets and liabilities are indexed to certain of the remaining USD LIBOR tenors, which will no longer be published by ICE after June 30, 2023.

The Alternative Reference Rates Committee (ARRC) has identified the Secured Overnight Financing Rate (SOFR) as its recommended alternative rate. SOFR is based on a broad segment of the overnight Treasuries repurchase market and is intended to be a measure of the cost of borrowing cash overnight collateralized by Treasury securities. The FHLBs, including the Bank, have offered SOFR-linked consolidated obligations on an ongoing basis and continue to offer SOFR-linked advances. The overnight Treasury repurchase market underlying SOFR has experienced and may experience disruptions from time to time, which has resulted and may result in unexpected fluctuations in SOFR. Introduction of an alternate reference rate also may create challenges in hedging and asset liability management and introduce additional basis risk and increased volatility for the Bank and other market participants. While market activity in SOFR-linked financial instruments has continued to develop, the progress has been uneven and there can be no guarantee that SOFR will become widely accepted and used across market segments and financial products in a timely and consistent manner and any other alternative reference rate may or may not be developed.

The market transition away from LIBOR continues to be gradual and complicated, including the development of term and credit adjustments to accommodate differences between LIBOR and any alternative rate. There can be no assurances that we and other market participants will be appropriately prepared for an actual discontinuation of LIBOR, that existing assets and liabilities based on or linked to LIBOR will transition successfully to alternative reference rates or benchmarks, or of the adoption and degree of integration of any alternative reference rates or benchmarks in the markets. Introduction of an alternative rate also may introduce additional basis risk for market participants, including the Bank, as an alternative index is utilized along with LIBOR. The discontinuation of LIBOR continues to have an unpredictable impact on the contractual mechanics of outstanding securities, loans, derivatives or other products, and may require renegotiation of outstanding contracts, impact the return on investments, or cause significant disruption to financial markets that are relevant to our business, among other adverse consequences. Additionally, any transition from current benchmarks may alter the Bank's risk profiles and models, systems, valuation tools, and effectiveness of hedging strategies, as well as increase the costs and risks related to potential regulatory requirements and operational readiness. In addition, the transition away from and discontinuance of LIBOR could result in disputes, including litigation, involving holders of outstanding instruments and contracts that reference LIBOR, whether or not the underlying documentation provides for alternative benchmark rates. Given the uncertainties, the Bank is not able to predict the impact of the transition from LIBOR on the Bank's business, financial condition, or results of operations. See also **LIBOR Transition** on page 56 for more details on our LIBOR transition.

Credit Risks

Our financial condition and results of operations, and the value of Bank membership, could be adversely affected by our exposure to credit risk.

We are exposed to credit risk principally through advances or commitments to our members, MPF Loans and related exposures, derivatives counterparties, unsecured counterparties, repurchase agreement transactions, and issuers of investment securities or the collateral underlying them. We assume secured and unsecured credit risk exposure associated with the risk that a borrower or counterparty could default, and we could suffer a loss if we are unable to fully recover amounts owed on a timely basis. In addition, we have exposure to credit risk because fair value of collateral may decline as a result of deterioration in the creditworthiness of the obligor or the credit quality of a security instrument (whether due to economic conditions or otherwise), or because the value of the collateral may not be what we assigned to it (whether as a result of misrepresentation or inaccurate valuation). We have a high concentration of credit risk exposure to financial institutions and mortgage assets. If we have insufficient collateral before or after an event of default, or we are unable to liquidate the collateral for the value assigned to it in



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the event of default, we could experience a credit loss, which could adversely affect our financial condition and results of operations.

We follow guidelines established by our Board of Directors and the FHFA on unsecured extensions of credit, which limit the amounts and terms of unsecured credit exposure to highly rated counterparties, the U.S. government, other FHLBs, and partners of our Community First Fund. However, there can be no assurance that these activities will prevent losses due to defaults on these assets.

Advances. To the extent our members are under financial stress, we are exposed to the risk that they may default on their outstanding obligations to us, including the repayment of advances. If a member defaults on its obligations, or the FDIC, or any other applicable receiver, fails either to promptly repay all of that failed institution's obligations or to assume the outstanding advances, then we may be required to liquidate the collateral pledged by the failed institution. The volatility of market prices and interest rates could affect the value of the collateral. The proceeds realized from the liquidation of pledged collateral may not be sufficient to fully satisfy the amount of the failed institution's obligations or the operational cost of liquidating the collateral. Default by a member with significant outstanding obligations to us could adversely affect our results of operations and financial condition. Although we will closely monitor our credit and collateral agreement processes, we may experience credit losses and our business may be adversely affected if we are unable to sufficiently collateralize our risk exposures in the event of potential default by or resolution of members.

As our membership grows to include more non-federally insured members and as we increase credit outstanding to such members, we face uncertainties surrounding the possible resolution of those members, in part due to not having experience with any non-federally insured members placed into receivership in the past and uncertainty with how their regulators and any receivers or other liquidators will handle such receiverships. Also, as we update our collateral loan eligibility criteria to accept more complex loan structures and additional commercial loan property types, we face risks relating to valuing and liquidating collateral with these characteristics.

Derivatives Counterparties. Our hedging strategies are highly dependent on our ability to enter into cleared and uncleared (over-the-counter) derivative instrument transactions with counterparties on acceptable terms to reduce interest-rate risk and funding costs.

If we experience disruptions in the credit markets, it may increase the likelihood that one of our derivatives counterparties fails to meet their obligations to us. If a counterparty defaults on payments due to us, we may need to enter into a replacement derivative contract with a different counterparty, which may be at a higher cost, or we may be unable to obtain a replacement contract. Additionally, the insolvency of one of our largest derivatives counterparties combined with an adverse change in the market before we are able to transfer or replace the derivative contracts could adversely affect our financial condition and results of operations. We may also be exposed to collateral losses to the extent that we have pledged collateral and its value declines, or could experience losses if the counterparty fails to return the collateral. These losses may be greater if we have a high-volume of derivatives with a single counterparty with more exposure to market swings or that is concentrated in an option-based products, e.g. SOFR, with lower market liquidity and depth. Additionally, we may be exposed to losses stemming from the replacement of the underlying LIBOR benchmark on LIBOR-linked derivatives to a replacement risk-free rate benchmark, such as SOFR, following cessation or non-representativeness of LIBOR. Losses from any of the foregoing could negatively affect our financial condition and results of operations and the value of FHLB membership.

Federal Funds. We invest in Federal Funds sold in order to ensure the availability of funds to meet members' credit and liquidity needs. Because these investments are unsecured, our credit policies and FHFA regulations restrict these investments to short-term maturities and certain eligible counterparties. If the credit markets experience disruptions, it may increase the likelihood that one of our Federal Funds counterparties could experience liquidity or financial constraints that may cause them to become insolvent or otherwise default on their obligations to us. For further discussion on our Federal Funds investments, see **Unsecured Short Term Investments** on page 79.

Securities Purchased Under Agreements to Resell. We also invest in securities purchased under agreements to resell in order to ensure the availability of funds to meet members' liquidity and credit needs. These investments are secured by marketable securities held by a third party custodian. If the credit markets experience disruptions, it may increase the likelihood that one of our counterparties could experience liquidity or financial constraints that may cause them to become insolvent or otherwise default on their obligations to us. If the collateral pledged to secure those obligations has decreased in value, we may suffer a credit loss. See the table in **Investment Debt Securities** on page 77 for a summary of counterparty credit ratings for these investments.



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Our MPF Program products have different risks than those related to our traditional advances products, which could adversely impact our results of operations.

The MPF Program, as compared to our advances products, is more susceptible to credit losses. If economic conditions weaken and regional or national home prices decline, we could experience higher delinquency levels and loss severities on our MPF Loan portfolio in the future.

We are exposed to losses on our conventional MPF Loans held in our portfolio through our obligation to absorb losses up to the FLA (to the extent those losses are not recoverable from PFIs from withholding performance-based CE Fees (Recoverable CE Fees)) and losses that exceed the PFI's CE Amount. Our FLA exposure as of December 31, 2021 is \$154 million. The next layer of losses after the FLA is the CE Amount and is allocated to the PFI, or SMI, as applicable. If losses accelerate in the overall mortgage market, we may experience increased losses that are allocated to us through the FLA or that may otherwise exceed the PFI's CE Amount and Recoverable CE Fees. Further, the PFIs may experience credit deterioration and default on their CE Amount, which, to the extent not offset against collateral provided by the PFIs, could cause us to incur additional losses and have an adverse effect on our results of operations.

Under the MPF Government product, we absorb any associated credit losses if we are unable to recover from the servicer or the insuring or guarantying government agency. We have the same risk with respect to the MPF Government MBS loans we acquire from our PFIs.

We also have geographic concentrations of MPF Loans secured by properties in certain states. To the extent that any of these geographic areas experience significant declines in the local housing markets, regional economic conditions, or a natural or man-made disaster, we could experience increased losses. For further information on these concentrations, see **Geographic Concentration** on page 74. For a description of the MPF Program, our obligations with respect to credit losses and the PFI's obligation to provide credit enhancement and comply with anti-predatory lending laws, see **Mortgage Partnership Finance Program** on page 8.

We are jointly and severally liable for the consolidated obligations of other FHLBs.

Under the FHLB Act, we are jointly and severally liable with the other FHLBs for consolidated obligations issued through the Office of Finance. If another FHLB defaults on its obligation to pay principal or interest on any consolidated obligation, the FHFA has the ability to allocate the outstanding liability among one or more of the remaining FHLBs on a pro rata basis or on any other basis that the FHFA may determine. The likelihood of triggering our joint and several liability obligation depends on many factors, including the financial condition and financial performance of the other FHLBs. If we were required by the FHFA to make payment on consolidated obligations, beyond our primary obligation, our financial condition and results of operations could be negatively affected.

The occurrence of weather-related events, other natural or environmental disasters, health emergencies, or other disruptive events, especially one affecting our district and/or members in our district, could negatively impact our business and results of operations. Relatedly, climate change could have a material adverse impact on our members and our business operations.

The occurrence of weather-related events, other natural or environmental disasters, terrorist attacks, civil unrest, health emergencies, pandemics, geopolitical instability or conflicts, or other disruptive events (any such event, a "major disruptive event"), especially one affecting our district, could negatively impact our business and results of operations. A major disruptive event that damages or destroys real estate securing mortgage loans, or negatively impacts the ability of borrowers to continue to make principal and interest payments on mortgage loans, or negatively impacts our members' business could increase delinquency rates and default rates, and negatively impact our collateral, MPF Loan portfolio, MBS or other investment portfolios, community investment programs, or cause our members to become delinquent or to default on their advances and other credit obligations to us. A decline in the local economies in which our members operate resulting from a major disruptive event could reduce members' needs for funding, which could reduce demand for our advances. The nature and level of these major disruptive events and the impact of global climate change upon their frequency and severity cannot be predicted. If major disruptive events occur, they may have a material effect on our financial condition or results of operations.

Relatedly, the Bank's business, and the activities of its members, could be disrupted by climate change. Potential physical risks from climate change may include adverse weather-related events and environmental disasters. In addition, these physical changes may prompt changes in regulations or consumer preferences, which in turn could have negative consequences for the business models of the Bank and its members. The Bank and its members will need to respond to any new laws and regulations, as well as consumer and business preferences resulting from climate change concerns. The Bank and its members may face cost increases, asset value reductions, operating and modeling process changes, and the like. The Bank could experience a drop in demand for its products and services. In addition, the Bank could face reductions in creditworthiness on the part of some



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members or counterparties or in the value of Bank investments or loans pledged as collateral or acquired through our MPF Program.

Operational Risks

A cyberattack, information or security breach, or a technology failure of ours or a third party could adversely affect our ability to conduct our business, result in the disclosure or misuse of confidential or proprietary information, and adversely impact our results of operations and financial condition, as well as cause legal or reputational harm.

Our operations are highly dependent on the security, controls and efficacy of our infrastructure, computer, communications, internet and data management systems, as well as those of our counterparties and other third parties, including their downstream service providers. Our business relies on effective access management and the secure collection, processing, transmission, storage and retrieval of confidential, proprietary, personally identifiable, and other information in our computer and data management systems and networks, and in the computer and data management systems and networks of third parties. Cyber-attacks, in particular those on financial institutions and financial market infrastructures, have become more frequent, sophisticated, and difficult to detect and prevent. These breaches or other attacks are pervasive and evolving and include computer viruses, malicious or destructive code (such as ransomware), phishing attacks, denial of service or information or other security breach tactics that could result in the unauthorized release, gathering, monitoring, misuse, loss or destruction or theft of confidential, proprietary, personally identifiable, and other information, damages to systems, or otherwise material disruption to our or our members' or other third parties' network access or business operations. Additionally, threats of cyber terrorism, external extremist parties, and state-sponsored actors or campaigns result in heightened risk exposure. The techniques used in cyberattacks change frequently and have grown increasingly sophisticated, and these attacks or ensuing security breaches could persist for an extended period of time before being detected. It could take considerable additional time for us to determine the scope, extent, amount, and type of information compromised, at which time the impact on the Bank and measures to recover and restore to a business as usual state may be difficult to assess.

The materiality of these risks depends on the nature, extent, and potential magnitude of a potential incident or attack. We engage in ongoing monitoring of the effectiveness of our security controls, engage in proper testing of our security controls and responses, and implement changes as needed to mitigate security vulnerabilities and bolster operational resilience. Regardless of the measures we have taken, our ability to conduct business may be adversely affected by any significant improper access to, or disclosure of personally identifiable information, or other confidential information, or cyberattacks or other significant disruptions. A failure or breach of our operational or security systems or infrastructure resulting in disruption to our critical business operations could expose us to regulatory, market, privacy and liquidity risk, and adversely impact our results of operations and financial condition, as well as cause legal or reputational harm. Moreover, expanded government scrutiny of practices relating to the safekeeping of personally identifiable information or other confidential information may result in the adoption of stricter laws or regulations that could impede our business or increase compliance costs. Our cyber risk and other insurance might not be sufficient to cover us against claims related to security incidents, breaches, cyberattacks and other related events.

We rely on quantitative models to manage risk, to make business decisions, and to value our assets and liabilities. Our business could be adversely affected if those models fail to produce reliable results.

We make significant use of both internal and external business and financial models to measure and monitor our risk exposures; including interest rate, prepayment, and other market risks, as well as credit risk. We also use models in determining the fair value of financial instruments when independent price quotations are not available or reliable. The information provided by these models is also used in making business decisions relating to strategies, initiatives, risk management, transactions, and products, and for financial reporting and dividend guidance. Models are inherently imperfect predictors of actual results. We use assumptions to predict interest rates, prepayment speeds, default rates, severity rates, and other factors that may overstate or understate future experience. When market conditions change rapidly and dramatically, the assumptions used for our models may not keep pace with changing conditions. Inaccurate data or assumptions in these models are likely to produce unreliable results. For example, uncertainty in the housing and mortgage markets may increase our exposure to the inherent risks associated with the reliance on internal models that use key assumptions to project future trends and performance. Although we regularly adjust our internal models in response to changes in economic conditions and the housing market and rely on our vendors to adjust our external models, the risk remains that our models could produce unreliable results or estimates that vary considerably from actual results.

If these models fail to produce reliable results, we may not make appropriate risk management or business decisions (including decisions relating to our dividend guidance), which could adversely affect our earnings, liquidity, capital position, reputation, and financial condition. Any strategies that we employ to attempt to manage the risks associated with the use of models may not be effective.



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Failures or interruptions in our information systems and other technology, our controls, or our operating processes generally, may harm our business, financial condition, results of operations, and reputation.

Our business is dependent upon our ability to interface effectively with other FHLBs, members, PFIs, and other third parties. Our products and services involve a complex and sophisticated operating environment supported by operating systems and technologies, which may be purchased, custom-developed, or hosted by third parties. Maintaining the availability, effectiveness, and efficiency of the technology used in our operations, including our information systems, is dependent on the continued timely implementation of technology solutions and improvements (including software updates and security patches) and systems necessary to effectively manage the Bank and mitigate risks, which may require significant capital expenditures. If we are unable to maintain or improve these technological capabilities, including retention of key technology personnel and the development of necessary operating and management processes, we may not be able to remain competitive and our business, financial condition, and results of operations may be significantly compromised. To date, we have not experienced any material effect or losses related to significant interruptions in our information systems, cyberattacks or other breaches.

Additionally, failures in our controls, including internal controls over financial reporting, could result from human error, fraud, design flaws, breakdowns in information and computer systems, or natural or man-made disasters. Moreover, lapses in, and inadequacies with respect to, our operating processes, including manual processes and data management, could adversely affect our overall operations, including collateral maintenance. We also rely on our employees and third parties in our day-to-day and ongoing operations, who may, as a result of human error, misconduct, malfeasance or a failure or breach of systems or infrastructure, expose us to risk and adverse effects resulting from such risk. A significant control failure, or a lapse in certain operating processes, could materially impact our financial condition and results of operations. We may not be able to foresee, prevent, mitigate, reverse, or repair some or all of the negative effects of such failures. If we are unable to correct material weaknesses or deficiencies in internal controls in a timely manner, our ability to record, process, summarize and report financial information accurately and within the time periods specified in the rules and forms of the SEC could be adversely affected. A failure in our internal control over financial reporting or a lapse in our operating processes could cause our members to lose confidence in our reported financial information, in our processes, or in us as a whole, subject us to government enforcement actions, and generally, materially, and adversely impact our business and financial condition.

A significant portion of our business support services are hosted by third party vendors and if our vendors fail to adequately perform the contracted services in the manner necessary to meet our needs or if they become subject to any information or security breach or technological failures, our business, financial condition, and results of operations may be harmed. Additionally any failure in the operating systems related to the Office of Finance could disrupt our ability to conduct and manage our business.

We have engaged various vendors to provide us with data center and hosted services that may include hardware, software support, connectivity, and other technology services, including vendors for which there are few substitutes or would be difficult to replace in a timely manner. Any failure, interruption, or breach in security of these systems or services, including relating to the downstream service providers of our vendors, could result in disruptions in our ability to conduct business, or negatively impact the ability of our personnel to work on other Bank business while handling such disruptions. There is no assurance that if or when such incidents do occur, that they will be adequately addressed by us or the third party vendors on whom we rely. Further, any such event may not be disclosed to us in a timely manner. The occurrence of any failures or interruptions could have a material adverse effect on our business, financial condition, and results of operations.

Additionally, we rely on the Office of Finance to facilitate the issuance and servicing of our consolidated obligations. A failure, interruption, or breach in the security of the Office of Finance's or their critical vendors' or third parties' (including the Federal Reserve Banks) operating systems could disrupt our access to funds, and may harm our business. For instance, the Federal Reserve Banks suffered a widespread outage on February 24, 2021, which resulted in disruptions to the Federal Reserve Banks' payment services and other financial services across the U.S., including services used by the FHLBs and the Office of Finance. Moreover, any operational failure of the Office of Finance or their critical vendors or third parties could also expose us to the risk of loss of data or confidential information, or other harm, including reputational damage.

The performance of our MPF Loan portfolio and off balance sheet MPF Program products depends in part upon third party service providers and defaults by one or more of these third parties on its obligations to us could adversely affect our results of operations or financial condition.

Mortgage Servicing. We rely on PFIs and third party servicers to perform mortgage loan servicing activities for our MPF Loans held in portfolio. With respect to the MPF Xtra and MPF Government MBS products, we are contractually obligated to Fannie Mae and Ginnie Mae, respectively, with respect to servicing of the related MPF Loans under certain servicing options.

Servicing activities include collecting payments from borrowers, paying taxes and insurance on the properties secured by the MPF Loans, advancing principal and interest under scheduled remittance options, maintaining applicable government agency



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insurance or guaranties, and reporting loan delinquencies, loss mitigation, and disposition of real estate acquired through foreclosure or deed-in-lieu of foreclosure. If current housing market trends negatively decline, the number of delinquent mortgage loans serviced by PFIs and third party servicers could increase. Managing a substantially higher volume of non-performing loans could create operational difficulties for our servicers. In the event that any of these entities fails to perform its servicing duties, we could experience a temporary interruption in collecting principal and interest or even credit losses on MPF Loans or incur additional costs associated with obtaining a replacement servicer if the servicer fails to indemnify us for its breaches. Similarly, if any of our servicers become ineligible to continue to perform servicing activities under MPF Program guidelines, we could incur additional costs to obtain a replacement servicer. If a PFI servicer fails to perform its servicing responsibilities, we can potentially recover losses we incur from the collateral pledged to us under our Advances, Collateral Pledge and Security Agreement with the PFI; however, the amount of collateral pledged thereunder is not sized to cover a specific amount related to servicing obligations. If a third party servicer is not one of our members, we would not have this additional remedy.

We offer servicing released alternatives for most of our MPF Loan products but currently we only have one servicing aggregator for particular products. If a servicing aggregator that is established as an approved servicer for the MPF Program exited the business or was not offering attractive servicing released premiums, or if we should decide to terminate our relationship with the servicer, our MPF Loan volume could be negatively impacted until we could engage replacement servicers.

Master Servicing. We act as master servicer for the MPF Program. In this regard, we have engaged a vendor for certain master servicing activities, and this vendor monitors the servicers' compliance with the MPF Program requirements and issues periodic reports to us. Recently, our vendor sold its servicing operations to another company. While we manage MPF Program cash flows, if our vendor should refuse or be unable to provide the necessary service, or if we should decide to terminate our relationship with the vendor, we may be required to engage another vendor which could result in delays in reconciling MPF Loan payments to be made to us or increased expenses to retain a new master servicing vendor.



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Item 1B. Unresolved Staff Comments.

Not applicable.

Item 2. Properties.

As of February 28, 2022, we occupy 129,065 square feet of leased office space at 433 West Van Buren Street, Chicago, Illinois 60607 (the “OPO Location”). We also maintain 5,518 square feet of leased space for an off-site back-up facility 15 miles northwest of our main facility, which is on a separate electrical distribution grid.

Item 3. Legal Proceedings.

The Bank may be subject to various legal proceedings arising in the normal course of business. After consultation with legal counsel, management is not aware of any legal proceedings that might have a material effect on the Bank’s financial condition or results of operations.

Item 4. Mine Safety Disclosures.

Not applicable.



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PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters, and Issuer Purchases of Equity Securities.

Our members, and under limited circumstances former members (including their successors), own our capital stock. Former members may continue to hold our capital stock when they have withdrawn from membership or have merged with out-of-district institutions. Our members elect our directors. We conduct our business almost exclusively with our members. Our stock can only be acquired and redeemed or repurchased at a par value of \$100 per share. Our stock is not publicly traded and no market mechanism exists for the exchange of stock outside our cooperative structure.

We issue only one class of capital stock, Class B stock, consisting of two sub-classes of stock, Class B1 stock and Class B2 stock which, under our Capital Plan has a par value of \$100 per share. As of January 31, 2022, we had 23,805,941 shares of capital stock outstanding, including mandatorily redeemable capital stock recorded as a liability, and we had 677 stockholders of record. For details on our Capital Plan, on member withdrawals and other terminations, and related amounts classified as mandatorily redeemable capital stock, see **Note 12 - Capital and Mandatorily Redeemable Capital Stock (MRCS)** to the financial statements and **Capital Resources** on page 62.

Information regarding our cash dividends declared in each quarter in 2020 and 2021, and information regarding regulatory requirements and restrictions on dividends, is set forth in the **Retained Earnings & Dividends Policy** section on page 66.

The following table presents, by type of institution, the outstanding capital stock holdings of our members and former members. Our capital stock may be redeemed upon five years' notice from the member to the Bank, subject to applicable conditions. For a description of our policies and related restrictions regarding capital stock redemptions and repurchases, see **Capital Resources** on page 62.

As of	December 31, 2021	December 31, 2020
Commercial banks	\$ 961	\$ 928
Savings institutions	85	89
Credit unions	544	449
Insurance companies	558	543
Community Development Financial Institutions	1	1
Total GAAP capital stock	2,149	2,010
Stock reclassified as mandatorily redeemable capital stock (liability)	247	279
Total regulatory capital stock outstanding	\$ 2,396	\$ 2,289



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Item 6. [Reserved]

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

Below are selected financial data for the last five fiscal years.

As of or for the years ended December 31,	2021	2020	2019	2018	2017
Other selected data at period end					
Member standby letters of credit outstanding	\$ 11,317	\$ 16,395	\$ 23,851	\$ 24,306	\$ 19,572
MPF Loans par value outstanding - FHLB System ^a	66,297	70,326	68,759	58,820	51,563
MPF Loans par value outstanding - FHLB Chicago PFIs ^a	18,600	18,934	17,364	14,522	12,484
Number of members	676	686	689	705	720
Total employees (full and part time)	466	474	488	468	460
Other selected data during the periods ended					
MPF Loans par value amounts funded - FHLB System ^a	\$ 17,078	\$ 27,387	\$ 21,005	\$ 13,617	\$ 11,915
Number of PFIs funding MPF products - FHLB System ^a	795	877	898	902	909
MPF Loans par value amounts funded - FHLB Chicago PFIs ^a	\$ 5,170	\$ 8,852	\$ 5,788	\$ 3,614	\$ 2,521
Number of PFIs funding MPF products - FHLB Chicago ^a	191	207	210	208	204
Selected ratios (rates annualized)					
Total regulatory capital to assets ratio	6.87 %	6.34 %	5.82 %	5.97 %	5.99 %
Market value of equity to book value of equity	107 %	105 %	105 %	105 %	107 %
Primary mission asset ratio ^b	70.3 %	71.5 %	72.0 % ^c	71.1 %	67.3 %
Dividend rate class B1 activity stock-period paid	5.00 %	5.00 %	5.00 %	4.06 %	3.19 %
Dividend rate class B2 membership stock-period paid	2.00 %	2.25 %	2.19 %	1.65 %	1.10 %
Return on average assets	0.28 %	0.36 %	0.30 %	0.33 %	0.38 %
Return on average equity	4.13 %	6.10 %	5.29 %	5.74 %	6.84 %
Average equity to average assets	6.78 %	5.90 %	5.67 %	5.74 %	5.58 %
Net yield on average interest earning assets	0.56 %	0.59 %	0.47 %	0.56 %	0.59 %
Cash dividends	\$ 86	\$ 84	\$ 82	\$ 64	\$ 40
Dividend payout ratio	31.27 %	22.46 %	27.33 %	21.12 %	12.62 %

^a Includes all MPF products, whether on or off our balance sheet. See **Mortgage Partnership Finance Program** beginning on page 8 for details on our various MPF products.

^b The FHFA issued an advisory bulletin that provides guidance relating to a primary mission asset ratio by which the FHFA will assess each FHLB's core mission achievement. See **Mission Asset Ratio** on page 5 for more information.

^c We have revised the previously disclosed primary mission asset ratios to reflect an adjusted calculation. See **Mission Asset Ratio** on page 5 for more information on the related FHFA advisory bulletin guidance.



(Dollars in tables in millions except per share amounts unless otherwise indicated)

Forward-Looking Information

Statements contained in this report, including statements describing the plans, objectives, projections, estimates, strategies, or future predictions of management, statements of belief, any projections or guidance on dividends or other financial items, or any statements of assumptions underlying the foregoing, may be “forward-looking statements.” These statements may use forward-looking terminology, such as “anticipates,” “believes,” “expects,” “could,” “plans,” “estimates,” “may,” “should,” “will,” their negatives, or other variations of these terms. We caution that, by their nature, forward-looking statements involve risks and uncertainties related to our operations and business environment, all of which are difficult to predict and many of which are beyond our control. These risks and uncertainties could cause actual results to differ materially from those expressed or implied in these forward-looking statements and could affect the extent to which a particular objective, projection, estimate, or prediction is realized. As a result, undue reliance should not be placed on such statements.

These forward-looking statements involve risks and uncertainties including, but not limited to, the following:

- the impact of the COVID-19 pandemic on the global and national economies and on our and our members’ businesses;
- the loss or changes in business activities with significant members; changes in the demand by our members for advances, including as a result of the Federal Reserve’s emergency actions to increase liquidity along with market conditions resulting from the COVID-19 pandemic (or changes to, or the cessation of such actions), the impact of pricing increases, and the availability of other sources of funding for our members, such as deposits;
- regulatory limits on our investments;
- the impact of new business strategies, including our ability to develop and implement business strategies focused on maintaining net interest income; our ability to successfully maintain our balance sheet and cost infrastructure at an appropriate composition and size scaled to member demand; our ability to execute our business model, implement business process improvements and scale our size to our members’ borrowing needs; the extent to which our members use our advances as part of their core financing rather than just as a back-up source of liquidity; and our ability to implement product enhancements and new products and generate enough volume in new products to cover our costs related to developing such products;
- the extent to which changes in our current capital stock requirements and/or our ability to continue to offer the Reduced Capitalization Advance Program for certain future advance borrowings, our ability to continue to pay enhanced dividends on our activity stock or our ability to maintain current levels of dividends, and any amendments to our capital plan, impact Bank product usage and activity with members;
- our ability to meet required conditions to repurchase and redeem capital stock from our members (including maintaining compliance with our minimum regulatory capital requirements and determining that our financial condition is sound enough to support such repurchases), the amount and timing of such repurchases or redemptions, any changes in our repurchase processes, and our ability to maintain compliance with regulatory and statutory requirements relating to our dividend payments;
- general economic and market conditions, including the timing and volume of market activity, inflation/deflation, unemployment rates, housing prices, the condition of the mortgage and housing markets, increased delinquencies and/or loss rates on mortgages, prolonged or delayed foreclosure processes, and the effects on, among other things, mortgage-backed securities; volatility resulting from the effects of, and changes in, various monetary or fiscal policies and regulations, such as those determined by the Federal Reserve Board and Federal Deposit Insurance Corporation; impacts from various measures to stimulate the economy and help borrowers refinance home mortgages; disruptions in the credit and debt markets and the effect on future funding costs, sources, and availability; the impact of the occurrence of a major natural or other disaster, a pandemic such as the COVID-19 pandemic, or other disruptive event; the impact of climate change; the impact of geopolitical uncertainties or conflicts;
- volatility of market prices, rates, and indices, or other factors, such as natural disasters, that could affect the value of our investments or collateral; changes in the value or liquidity of collateral securing advances to our members;
- changes in the value of and risks associated with our investments in mortgage loans, mortgage-backed securities, and the related credit enhancement protections;
- changes in our ability or intent to hold mortgage-backed securities to maturity;
- changes in mortgage interest rates and prepayment speeds on mortgage assets;



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- membership changes, including the loss of members through mergers and consolidations or as a consequence of regulatory requirements; changes in the financial health of our members, including the resolution of some members; risks related to expanding our membership to include more institutions with regulators and resolution processes with which we have less experience;
- increased reliance on short-term funding and changes in investor demand and capacity for consolidated obligations and/or the terms of interest rate derivatives and similar agreements, including changes in the relative attractiveness of consolidated obligations as compared to other investment opportunities; changes in our cost of funds due to concerns over U.S. fiscal policy, and any related rating agency actions impacting FHLB consolidated obligations;
- uncertainties relating to the scheduled phase-out of LIBOR;
- political events, including legislative, regulatory, judicial, or other developments that affect us, our members, our counterparties and/or investors in consolidated obligations, including, among other things, changes in the proposals and legislation related to housing finance and GSE reform; changes in the Presidential Administration and the Congress; changes in our regulator or changes affecting our regulator and changes in the FHLB Act or applicable regulations as a result of the Housing and Economic Recovery Act of 2008 (Housing Act) or as may otherwise be issued by our regulator; the potential designation of us as a nonbank financial company for supervision by the Federal Reserve;
- regulatory changes to FHLB membership requirements, capital requirements, MPF Program requirements, and liquidity requirements by the FHFA, and increased guidance from the FHFA impacting our balance sheet management, product structures, and collateral practices;
- the ability of each of the other FHLBs to repay the principal and interest on consolidated obligations for which it is the primary obligor and with respect to which we have joint and several liability;
- the pace of technological change and our ability to develop and support technology and information systems, including our ability to protect the security of our information systems and manage any failures, interruptions or breaches in our information systems or technology services provided to us through third party vendors;
- our ability to recruit and retain qualified personnel;
- the impact of new accounting standards and the application of accounting rules, including the impact of regulatory guidance on our application of such standards and rules;
- the volatility of reported results due to changes in the fair value of certain assets and liabilities;
- our ability to identify, manage, mitigate, and/or remedy internal control weaknesses and other operational risks; and
- the reliability of our projections, assumptions, and models on our future financial performance and condition, including dividend projections.

For a more detailed discussion of the risk factors applicable to us, see **Risk Factors** starting on page 22.

These forward-looking statements are representative only as of the date they are made, and we undertake no obligation to update any forward-looking statement as a result of new information, future events, changed circumstances, or any other reason.



(Dollars in tables in millions except per share amounts unless otherwise indicated)

Executive Summary

2021 Financial Highlights

- We recorded net income of \$275 million in 2021, compared to \$374 million in 2020, with the year over year decline mainly attributable to a gain of \$109 million from the sale of our private label mortgage-backed securities (PLMBS) portfolio in the fourth quarter of 2020.
- Net interest income for 2021 was \$543 million, compared to \$595 million in 2020, with the decline primarily driven by the lower interest rate environment.
- Noninterest income decreased by \$116 million to (\$12) million in 2021 compared to \$104 million in 2020, with the decline primarily attributable to a \$109 million gain from the sale of our PLMBS portfolio in the fourth quarter of 2020.
- Noninterest expense was \$222 million for 2021 compared to \$275 million in 2020, with the change primarily driven by decreases in compensation and benefits expense, and expenses related to our COVID-19 relief program.
- Total assets were \$97.0 billion at year-end 2021 compared to \$100.4 billion at year-end 2020, with the change driven by a decrease in our liquidity portfolio that more than offset a slight increase in advances and investment securities.
- Total investment securities increased 4% to \$25.5 billion at year-end 2021 compared to \$24.5 billion at year-end 2020, as we invested in primarily GSE MBS and U.S. Treasuries during the latter half of 2021.
- Retained earnings were \$4.3 billion at year-end 2021, up from \$4.1 billion at year-end 2020, and we remained in compliance with all of our regulatory capital requirements as of year-end 2021.
- Letters of credit commitments decreased to \$11.3 billion at year-end 2021, down from \$16.4 billion at year-end 2020, primarily due to one of our former captive insurance company members reducing its letters of credit usage in connection with its membership termination in the first quarter of 2021.

Summary and Outlook

We have remained steadfast in our mission through the ongoing challenges of the COVID-19 pandemic and an ever-changing economic landscape. As we continued to demonstrate our unwavering commitment to being a reliable and competitive source of funding to our members, we advanced our products to help our members invest in their communities. Additionally, this year, many of our members helped us better understand their DEI journeys. Our members' feedback, through open and candid dialogues with our sales directors and responses from our DEI surveys, provided direction for how we can tailor our products to better meet members' needs and the diverse communities they serve. We remain committed to offering a range of community investment products that support diverse and underserved communities throughout Illinois and Wisconsin and the year ahead brings even more opportunity to expand program offerings to our members and their partners. We believe that a positive DEI platform has helped strengthen both our culture and our cooperative, all while helping our members achieve their financial and community investment goals.

Fourth Quarter 2021 Dividends and Dividend Guidance

Based on our preliminary fourth quarter 2021 results, the Board of Directors declared our fourth quarter 2021 dividends on January 28, 2022: 5.00% (annualized) for Class B1 activity stock and 2.00% (annualized) for Class B2 membership stock. Dividends were paid on February 15, 2022. The net benefit of the higher dividend received on Class B1 activity stock has the effect of lowering our members' borrowing costs.

We expect to maintain at least a 5.00% (annualized) dividend for Class B1 activity stock for the first and second quarters of 2022, based on current projections and assumptions regarding our financial condition. We are providing this information to assist members in planning advance, letters of credit, and MPF Program on-balance sheet product activity with us. Any future dividend payments remain subject to determination and declaration by our Board of Directors and may be impacted by changes in financial or economic conditions, regulatory and statutory limitations, and other relevant factors.

Resilient Member Engagement

In 2021, 90% of our members and housing associates used at least one of our core product offerings—advances, letters of credit, or MPF Program products—or participated in our competitive AHP or DPP programs. We approved 13 new institutions for membership as of the end of 2021; ten of those institutions became members in 2021 and three of those institutions became members in 2022.

- Advance products: At year-end 2021, 576 members had advances of \$48 billion, up 3% from year-end 2020. Although many of our depository members experienced increased liquidity, our advance numbers remained strong. Additionally, one-third of member institutions who have not borrowed with us in the recent past successfully tested their line with the Bank this year.
- MPF Program: During 2021, 191 PFIs funded our MPF products. At year-end 2021, MPF Loans outstanding on our balance sheet were \$9.8 billion, mostly unchanged from 2020 as new acquisition volume, driven by historically low mortgage rates, kept pace with paydowns and prepayment activity.
- AHP and DPP: For 2021, we awarded \$30 million in AHP funds to help finance 51 affordable housing projects located



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primarily in Illinois and Wisconsin. These funds will support the acquisition, rehabilitation and new construction for 2,430 housing units. By year-end 2021, 175 members had disbursed \$19 million in DPP grants on behalf of 3,365 homebuyers in members' communities. We recently announced our 2022 Affordable Housing Program and opened our 2022 DPP programs.

Investing in Members' Communities

Our community investment products and programs are central to our mission and help members meet their homeownership, affordable housing, economic development and community lending goals. Here is a recap of some of those efforts in 2021.

- **Community Advances:** To lower members' borrowing cost when lending to small businesses, our Community Small Business Advance provides 0% financing. We also increased the member limits for Community Housing Advance and Community Development Advance projects last year. In 2021, 11 members submitted a total of 35 Community Advance applications, 28 of which were ultimately drawn, representing \$157 million in lending to members for projects supporting members' communities.
- **Community First Capacity-Building Grant Program:** In 2021, we awarded \$300,000 in Capacity-Building Grant Program funds to six nonprofit lenders in partnership with five members. Recipients will use the grants to increase their program reach via investments in technology, marketing, staff training and other areas – while supporting diversity, equity and inclusion-oriented objectives.
- **Community First Disaster Relief Program:** We allocated \$450,000 to support Illinois communities impacted by the severe storms that struck December 10, 2021. Through March 31, 2022, our member institutions can apply for \$5,000 grants on behalf of eligible homeowners and small businesses located in the qualifying disaster area. Since the program's inception in 2013, we have awarded over \$1.6 million in disaster relief funding.

Impact of COVID-19 Pandemic

During 2021, Bank staff transitioned from operating fully remote to operating in a limited hybrid environment, while continuing to fully serve members. Notwithstanding the easing of restrictive measures, uncertainty remains with respect to the speed and extent to which normal economic and operating conditions can resume, and with the ultimate effect of the COVID-19 pandemic on our workforce, business, financial condition, and results of operations. For a discussion of risks relating to the impact of the COVID-19 pandemic, see **Risk Factors** starting on page 22.



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Critical Accounting Policies and Estimates

See **Note 2 - Summary of Significant Accounting Policies** to the financial statements for further details on our accounting policies.

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, liabilities, income and expense. To understand the Bank's financial position and results of operations, it is important to understand the Bank's most significant accounting policies and the extent to which management uses judgment, estimates and assumptions in applying those policies. The Bank's critical accounting policies and estimates include the following:

- Derivatives and hedging activities; and
- Fair value estimates.

Derivatives and Hedging Activities

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 do not trade derivatives for speculative purposes. We enter into derivative transactions through either of the following:

- A bilateral agreement with an individual counterparty for over-the-counter derivative transactions.
- Clearinghouses classified as DCOs through FCMs, which are clearing members of the DCOs, for cleared derivative transactions.

Managing Interest Rate Risk

We carry all derivatives at fair value in our statements of condition. We use fair value hedges to manage our exposure to changes in the fair value of (1) a recognized asset or liability or (2) an unrecognized firm commitment, attributable to changes in a benchmark interest rate. Our cash flow hedge strategy is to hedge the variability in the total net proceeds received from rolling forecasted zero-coupon discount note issuance, attributable to changes in the benchmark interest rate, by entering into pay-fixed interest rate swaps.

We may elect the fair value option for financial instruments, such as advances, MPF Loans held for sale, and consolidated obligation discount notes and bonds, in cases where hedge accounting treatment may not be achieved due to the inability to meet the hedge effectiveness testing criteria, or in certain cases where we wish to mitigate the risk associated with selecting the fair value option for other instruments. We may also use economic hedges when hedge accounting is not permitted or hedge effectiveness is not achievable.

Derivative Hedge Accounting - Refer to **Note 2 - Summary of Significant Accounting Policies** and **Note 9 - Derivatives and Hedging Activities** for further details. We apply hedge accounting to qualifying hedge relationships. A qualifying hedge relationship exists when a derivative hedging instrument is expected to effectively offset changes in fair values, cash flows, or underlying risk of the hedged item during the term of the hedge relationship. We prepare formal contemporaneous documentation at inception of the hedge relationship to support that the hedge relationship qualifies for hedge accounting treatment and assess hedge effectiveness on an ongoing basis. On a quantitative basis hedge effectiveness is considered to exist when correlation between the hedged item and hedging instrument is between 80% and 125%. When correlation between the hedged item and hedging instrument is between 90% and 110% a qualitative analysis is performed. The hedge documentation formally documents the hedge relationship and its risk management objective and strategy for undertaking the hedge, including identification of the hedging instrument, the hedged item, the nature of the risk being hedged, and how the hedging instrument's effectiveness in offsetting the exposure to changes in the hedged item's fair value attributable to the hedged risk will be assessed.



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As of December 31, 2021, we held \$73.1 billion notional of interest-rate derivatives with a total, net asset (liability) fair market value of \$(1.2) billion, excluding posted collateral. These derivatives hedge mostly our fixed rate interest bearing assets and liabilities. The following table shows the estimated changes in the fair market value of our interest-rate derivatives under parallel interest-rate shifts allowing interest rates to go negative under the current low rate environment (for example the same change to interest rates on short-, intermediate-, and long-term fixed income maturities):

Change from base case in bps	As of December 31, 2021							
	-200	-100	-50	-25	+25	+50	+100	+200
Net change in fair market value	\$ (3,755)	\$ (1,590)	\$ (691)	\$ (319)	\$ 268	\$ 496	\$ 864	\$ 1,387

The above table includes total derivatives entered into by the Bank, which includes interest-rate derivatives related to fair value hedges, cash flow hedges, and economic hedges.

In addition to performing the above sensitivity analysis, we also compare our fair value estimates of our outstanding derivatives to the estimates of our counterparties. At December 31, 2021 the difference between our total, net estimated fair market value of derivatives versus that of the counterparties' estimated values was \$15 million or 1.2%.

Fair Value Estimates

We believe our estimated fair value amounts are reasonable; however, as outlined below, there are inherent limitations in any valuation technique.

- Our estimated fair value amounts are highly subjective in nature. We select assumptions and inputs from a market participant's perspective to use with any of our valuation techniques. Such assumptions and inputs include, but are not limited to, the amount and timing of future cash flows, prepayment speed, expected interest rate volatility, possible distributions of future interest rates used to value options, and the selection of discount rates that appropriately reflect market and credit risks. Significant judgment is required when selecting such assumptions and inputs. Using different assumptions and inputs could have a material effect on our estimated fair value amounts. Further, the estimated fair value amounts presented in our statements of condition and disclosed in our notes to financial statements are not necessarily indicative of the amounts that would be realized in current market transactions.
- Our estimated fair value amounts are made as of the statement of condition date; and accordingly, such estimated fair value amounts are susceptible to material changes thereafter.

Fair value represents the exit price that we would receive to sell an asset or pay to transfer a liability in an orderly transaction with a market participant at the measurement date.

Valuation Techniques and Significant Inputs

We utilize the fair value hierarchy when selecting valuation techniques and significant inputs to measure the fair value of our assets and liabilities. Our valuation techniques may utilize market, cost, and/or income models to estimate fair values. Under the fair value hierarchy, valuation techniques and significant inputs are prioritized from the most objective, such as quoted market prices in external active markets, to the least objective, such as valuation approaches that utilize unobservable inputs. The fair value hierarchy requires us to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value. Outlined below is an overview of Level 1, Level 2, and Level 3 of the fair value hierarchy. Refer to **Note 15 - Fair Value** for further details on our valuation techniques and significant inputs.

- Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities that we can access at the measurement date.
- Level 2 inputs are inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly. If the asset or liability has a specified (contractual) term, a Level 2 input must be observable for substantially the full term of the asset or liability. Level 2 inputs include the following: (1) quoted prices for similar assets or liabilities in active markets; (2) quoted prices for identical or similar assets or liabilities in markets that are not active or in which little information is released publicly; (3) inputs other than quoted prices that are observable for the asset or liability (e.g., interest rates and yield curves that are observable at commonly quoted intervals and implied volatilities); and (4) inputs that are derived principally from or corroborated by observable market data (e.g., implied spreads).



(Dollars in tables in millions except per share amounts unless otherwise indicated)

- Level 3 inputs are unobservable inputs used to measure fair value of an asset or liability to the extent that relevant observable inputs are not available; for example, situations in which there is little, if any, market activity for the asset or liability at the measurement date.

Valuation of Derivatives and Hedged Items. For purposes of estimating the fair value of derivatives and items for which we are hedging changes in the benchmark fair value, we employ a valuation model that uses market data from the Eurodollar futures, cash LIBOR, U.S. Treasury obligations, Effective federal funds rates (EFFR), overnight indexed swap rates, Secured Overnight Financing Rate (SOFR), SOFR Futures and the U.S. dollar interest-rate-swap markets to construct discount and forward-yield curves using standard financial market techniques.

For the valuation of derivatives, we use OIS based on the federal funds effective rate as the discount rate for our interest-rate derivatives which are not cleared through a DCO, while SOFR discounting curve is used for valuation of derivative cleared through a DCO. For derivatives, we compare the fair values obtained from our valuation model to clearinghouse valuations (in the case of cleared derivatives) and non-binding dealer estimates (in the case of bilateral derivatives) or other valuation models, and may also compare derivative fair values to those of similar instruments, to ensure such fair values are reasonable.

For the valuation of hedged assets or liabilities in fair-value hedging relationships where the hedged risk changes in the benchmark fair value for hedge relationship term, we use LIBOR, OIS or SOFR as the discount rate, depending on which interest-rate index was designated as the benchmark rate at inception of the hedge relationship. These valuations are calculated using the same valuation model that calculates the fair values of the associated hedging derivatives. This valuation model is subject to a model validation approximately every two years by either an external party or an internal validation group. We periodically review and refine, as appropriate, the assumptions and valuation methodologies to reflect market indications as closely as possible.

Depending upon the spreads between LIBOR, OIS and SOFR rates, the use of the curve to value our interest-rate exchange agreements and the curve (plus or minus a constant spread) to derive the benchmark fair values of our hedged items could be different and result in increased fair-value hedge ineffectiveness. In addition, while not likely, this valuation methodology has the potential to lead to the loss of hedge accounting for some of these hedging relationships. Either of these outcomes could result in increased earnings volatility, which could potentially be material. However, through December 31, 2021, no hedge relationships failed our hedge effectiveness criteria as a result of using LIBOR, OIS or SOFR curves as the discount rate.

Valuation of Investment Securities. To value our holdings of investment securities, we obtain prices from three designated third-party pricing vendors when available. The pricing vendors use various proprietary models to price these securities. 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. Because many securities do not trade on a daily basis, the pricing vendors use available information as applicable such as benchmark curves, benchmarking of like securities, sector groupings and matrix pricing to determine the prices for individual securities. Each pricing vendor has an established challenge process in place for all security valuations, which facilitates resolution of potentially erroneous prices identified by the Bank. Annually, we conducted reviews of the three pricing vendors to reconfirm our understanding of the vendors' pricing processes, methodologies and control procedures and were satisfied that those processes, methodologies and control procedures were adequate and appropriate.

As of December 31, 2021, multiple vendor prices were received for substantially all of our investment securities and the final prices for substantially all of those securities were computed by averaging those prices. Based on our review of the pricing methods and controls employed by the third-party pricing vendors and the relative lack of dispersion among the vendor prices (or, in those instances in which there were outliers or significant yield variances, our additional analyses), we believe the final prices used are reasonably likely to be exit prices and further that the fair-value measurements are classified appropriately in the fair-value hierarchy.



(Dollars in tables in millions except per share amounts unless otherwise indicated)

Results of Operations

Net Interest Income

Net interest income is the difference between the amount we recognize into interest income on our interest earning assets and the amount we recognize into interest expense on our interest bearing liabilities. These amounts were determined in accordance with GAAP and were based on the underlying contractual interest rate terms of our interest earning assets and interest bearing liabilities as well as the following items:

- Amortization of premiums;
- Accretion of discounts;
- Hedge ineffectiveness, which represents the difference between changes in fair value of the derivative hedging instrument and the related change in fair value of the hedged item is recognized into either interest income or interest expense, whichever is appropriate. For cash flow hedges, recognition occurs only when amounts are reclassified out of accumulated other comprehensive income. Such recognition occurs when earnings are affected by the hedged item;
- Net interest paid or received on interest rate swaps that are accounted for as fair value or cash flow hedges;
- Amortization of fair value and cash flow closed hedge adjustments;
- Advance and investment prepayment fees; and
- MPF credit enhancement fees.

The following table presents the increase or decrease in interest income and expense due to volume or rate variances. The calculation of these components includes the following considerations:

- *Average Balance:* Average balances are calculated using daily balances. Amortized cost is used to compute the average balances for most of our financial instruments, including MPF Loans held in portfolio (including those that are on nonaccrual status) and available-for-sale debt securities. Fair value is used to compute average balances for our trading debt securities and financial instruments carried at fair value under the fair value option.
- *Total Interest:* Total interest includes the net interest income components, as discussed above, applicable to our interest earning assets and interest bearing liabilities.
- *Yield/Rate:* Effective yields/rates are based on total interest and average balances as defined above. Yields/rates are calculated on an annualized basis. The calculation of the yield on our available-for-sale securities does not give effect to changes in fair value that are reflected as a component of accumulated other comprehensive income (AOCI).
- The change in volume is calculated as the change in average balance multiplied by the current year yield. The change in rate is calculated as the change in yield multiplied by the prior year average balance. Any changes due to the combined volume/rate variance have been allocated to volume.



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2021 compared to 2020

	2021			2020			Increase (decrease) due to		
	Average Balance	Interest Income/Expense	Yield/Rate	Average Balance	Interest Income/Expense	Yield/Rate	Volume	Rate	Net Change
For the years ended December 31,									
Investment debt securities	\$ 21,745	\$ 284	1.31 %	\$ 23,642	\$ 497	2.10 %	\$ (26)	\$ (187)	\$ (213)
Advances	51,932	282	0.54 %	54,639	586	1.07 %	(14)	(290)	(304)
MPF Loans held in portfolio	9,838	251	2.55 %	10,382	295	2.84 %	(14)	(30)	(44)
Federal funds sold	7,213	5	0.07 %	7,090	30	0.42 %	—	(25)	(25)
Securities purchased under agreements to resell	4,454	2	0.04 %	3,125	14	0.45 %	1	(13)	(12)
Interest earning deposits	1,182	2	0.17 %	1,885	8	0.42 %	(1)	(5)	(6)
Other interest earning assets	129	2	1.55 %	155	5	3.23 %	—	(3)	(3)
Interest earning assets	96,493	828	0.86 %	100,918	1,435	1.42 %	(42)	(565)	(607)
Noninterest earning assets	2,368			2,354					
Total assets	98,861			103,272					
Consolidated obligation discount notes	44,500	44	0.10 %	45,604	307	0.67 %	(3)	(260)	(263)
Consolidated obligation bonds	44,915	229	0.51 %	48,749	516	1.06 %	(19)	(268)	(287)
Other interest bearing liabilities	1,213	12	0.99 %	1,407	17	1.21 %	(2)	(3)	(5)
Interest bearing liabilities	90,628	285	0.31 %	95,760	840	0.88 %	(9)	(546)	(555)
Noninterest bearing liabilities	1,570			1,910					
Total liabilities	92,198			97,670					
Net yield on interest earning assets	\$ 96,493	\$ 543	0.56 %	\$100,918	\$ 595	0.59 %	\$ (22)	\$ (30)	\$ (52)

- Interest income from investment debt securities decreased primarily due to lower short-term market interest rates in 2021 compared to the same period in 2020. In addition, the yield earned on our investment securities during 2021 as compared to the same period in 2020 declined, which was primarily attributable to the sale of our PLMBS in October 2020. See **Note 2 – Summary of Significant Accounting Policies** for more information on these PLMBS sales.
- Interest income from advances decreased primarily due to the lower interest rate environment since the Federal Reserve dramatically lowered interest rates in response to the COVID-19 pandemic. Lower demand for advances from our depository members, while mostly offset by increased demand from our insurance company members, has also impacted our net interest income. Additionally, advance prepayments throughout 2020 resulted in a decline in our portfolio of higher interest earning advances which reduced the yield earned and balance outstanding on our advance portfolio in 2021 compared to the same period in 2020.
- Interest income from MPF Loans held in portfolio declined primarily due to the lower mortgage rate environment impacting the yield earned on new loan originations, along with recognition of premium amortization expense of \$62 million in 2021 compared to \$76 million in 2020 as loan prepayments slowed in 2021. In addition, the average balance of MPF Loans held in portfolio decreased slightly as new-acquisition volume was outpaced by paydown and maturity activity.
- Interest income from overnight federal funds sold, securities purchased under agreements to resell, and interest earning deposits decreased due to lower short-term market interest rates in 2021 compared to the same period in 2020.
- Interest expense on our consolidated obligations decreased due to lower short-term market interest rates in 2021 compared to the same period in 2020. Additionally, we replaced our more expensive callable debt with more advantageously priced funding.
- For details of the effect our fair value and cash flow hedge activities had on our net interest income see **Trading Securities, Derivatives and Hedging Activities, and Instruments Held Under the Fair Value Option** table on page 48.



FHLBank
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2020 compared to 2019

	2020			2019			Increase (decrease) due to		
	Average Balance	Interest Income/Expense	Yield/Rate	Average Balance	Interest Income/Expense	Yield/Rate	Volume	Rate	Net Change
For the years ended December 31,									
Investment debt securities	\$ 23,642	\$ 497	2.10 %	\$ 20,575	\$ 704	3.42 %	\$ 65	\$ (272)	\$ (207)
Advances	54,639	586	1.07 %	55,203	1,333	2.41 %	(7)	(740)	(747)
MPF Loans held in portfolio	10,382	295	2.84 %	8,308	313	3.77 %	59	(77)	(18)
Federal funds sold	7,090	30	0.42 %	8,715	189	2.17 %	(6)	(153)	(159)
Securities purchased under agreements to resell	3,125	14	0.45 %	2,910	64	2.20 %	1	(51)	(50)
Interest earning deposits	1,885	8	0.42 %	1,262	28	2.22 %	3	(23)	(20)
Other interest earning assets	155	5	3.23 %	114	4	3.51 %	1	—	1
Interest earning assets	100,918	1,435	1.42 %	97,087	2,635	2.71 %	52	(1,252)	(1,200)
Noninterest earning assets	2,354			1,797					
Total assets	103,272			98,884					
Consolidated obligation discount notes	45,604	307	0.67 %	45,699	1,038	2.27 %	—	(731)	(731)
Consolidated obligation bonds	48,749	516	1.06 %	45,273	1,109	2.45 %	36	(629)	(593)
Other interest bearing liabilities	1,407	17	1.21 %	1,012	30	2.96 %	5	(18)	(13)
Interest bearing liabilities	95,760	840	0.88 %	91,984	2,177	2.37 %	34	(1,371)	(1,337)
Noninterest bearing liabilities	1,910			1,231					
Total liabilities	97,670			93,215					
Net yield on interest earning assets	\$100,918	\$ 595	0.59 %	\$ 97,087	\$ 458	0.47 %	\$ 20	\$ 117	\$ 137

- Interest income from investment debt securities decreased due to lower market interest rates in 2020 compared to the same period in 2019.
- Interest income from advances decreased primarily due to lower market interest rates in 2020 compared to the same period in 2019.
- Interest income from MPF Loans held in portfolio declined due to the lower mortgage rate environment impacting the yield earned on new loan originations, along with an increased recognition of premium amortization expense of \$76 million in 2020 compared to \$30 million in 2019, primarily due to an increase in loans prepaid. However, the decline in overall rate yield of the MPF portfolio was mostly offset by higher volumes, on an average basis, as new-acquisition volume outpaced paydown and maturity activity due to loan origination activity driven by refinancings as mortgage rates declined overall.
- Interest income from overnight Federal Funds sold, securities purchased under agreements to resell, and interest earning deposits decreased due to lower market interest rates in 2020 compared to the same period in 2019.
- Interest expense on our shorter termed consolidated obligation discount notes decreased due to lower market interest rates in 2020 compared to the same period in 2019.
- Interest expense on our longer termed consolidated obligation bonds decreased due to lower market interest rates in 2020 compared to the same period in 2019.
- For details of the effect our 2019 fair value and cash flow hedge activities had on our net interest income see **Trading Securities, Derivatives and Hedging Activities, and Instruments Held Under the Fair Value Option** table on page 42 in our 2019 Form 10-K.



(Dollars in tables in millions except per share amounts unless otherwise indicated)

Noninterest income

For comparisons to 2019 see **Noninterest Income** on page 49 in our 2020 Form 10-K.

For the years ended December 31,	2021	2020
Trading securities	\$ (44)	\$ 15
Investment securities gains	1	109
Derivatives	17	(148)
Instruments held under the fair value option	(46)	60
MPF fees, 25 and 31, from other FHLBs	46	54
Other, net	14	14
Noninterest income (loss)	\$ (12)	\$ 104

Investment Securities Gains

Gains on our investment securities due to sale of our AFS and HTM PLMBS in 2020 were primarily attributable to the year over year decline in noninterest income for 2021. See **Note 2 - Summary of Significant Accounting Policies** for further details on our sale of PLMBS during October 2020.

Trading Securities, Derivatives and Hedging Activities, and Instruments Held Under Fair Value Option

Losses on our trading securities and instruments held under fair value option more than offset our gains in our derivatives and hedging activities. The corresponding gains and losses for instruments held under fair value option, derivatives and hedging activities, and trading securities were primarily attributable to the movement in market interest rates in 2021 compared to 2020.

The following table details the net income effect of all of our hedging related transactions, which were recorded in the following lines in our statements of net income.

	Advances	Investments	MPF Loans	Discount Notes	Bonds	Other	Total
Year ended December 31, 2021							
Recorded in net interest income	\$ (208)	\$ (279)	\$ (1)	\$ (18)	\$ 228	\$ —	\$ (278)
Recorded in derivatives & hedging activities	31	—	(14)	—	—	—	17
Recorded in trading securities	—	(40)	—	—	—	—	(40)
Recorded on instruments held under fair value option	(46)	—	(3)	—	4	(1)	(46)
Total net effect gain (loss) of hedging activities	\$ (223)	\$ (319)	\$ (18)	\$ (18)	\$ 232	\$ (1)	\$ (347)
Year ended December 31, 2020							
Recorded in net interest income	\$ (216)	\$ (182)	\$ 1	\$ (20)	\$ 122	\$ —	\$ (295)
Recorded in derivatives & hedging activities	(86)	(91)	(3)	20	8	4	(148)
Recorded in trading securities	—	(6)	—	—	—	—	(6)
Recorded on instruments held under fair value option	64	—	(1)	—	(3)	—	60
Total net effect gain (loss) of hedging activities	\$ (238)	\$ (279)	\$ (3)	\$ —	\$ 127	\$ 4	\$ (389)

MPF fees (including from other FHLBs)

A majority of MPF fees are from other FHLBs that pay us a fixed membership fee to participate in the MPF Program and a volume-based fee for us to provide services related to MPF Loans carried on their balance sheets. MPF fees also include



(Dollars in tables in millions except per share amounts unless otherwise indicated)

income from other third party off-balance sheet MPF Loan products and other related transaction fees. These fees are designed to compensate us for the expenses we incur to administer the program. Decreases in our 2021 MPF fees were primarily driven by a decrease in volume in both MPF Loans held in portfolio and off-balance sheet MPF Loan products resulting in a decline in fee income.

Other, net

Other, net includes fee income we earn from member standby letters of credit products.

Noninterest Expense

For comparisons to 2019 see **Noninterest Expense** on page 50 in our 2020 Form 10-K.

For the years ended December 31,	2021	2020
Compensation and benefits	\$ 105	\$ 132
Nonpayroll operating expenses	85	94
COVID-19 relief program	3	28
Federal Housing Finance Agency and Office of Finance	17	13
Other, net	12	8
Noninterest expense	\$ 222	\$ 275

The following analysis and comparisons apply to the periods presented in the above table.

Compensation and benefits decreased primarily due to reduced pension and other employee-related costs.

Nonpayroll operating expenses were lower compared to prior periods due to a one-time expense in 2020 related to the termination of our former Aon Center building lease in addition to reduced information technology expenses in 2021. However, we continue our planned investment in information technology, specifically applications, infrastructure and resiliency.

As discussed in **Environmental, Social, and Governance** on page 14, as part of the Bank's ongoing commitment to provide support to our members throughout the COVID-19 pandemic, from May 3, 2021 to May 28, 2021 we made available a 0% interest-rate advance with a maximum borrowing amount up to \$5 million for all member institutions. Over half of our members took advantage of this advance offering, resulting in \$1.7 billion in subsidized, 0% advances to support our members and approximately \$3 million recorded in expenses. In 2020, we also offered COVID-19 relief programs to support communities in Illinois and Wisconsin; for more information on these programs, see **Environmental, Social, and Governance** on page 13 of the 2020 10-K.

Federal Housing Finance Agency and Office of Finance expenses consist of our share of the funding for the FHFA, our regulator, and the Office of Finance, which manages the consolidated obligation debt issuances of the FHLBs.

Other, net expenses primarily consists of net benefit costs associated with our nonqualified deferred compensation plan. In addition, Other, net includes MPF related non-operating expenses/gains on the sale of real estate owned (REO).

As noted in **Noninterest Income** on page 48, we earn MPF fees from the MPF Program, a majority of which are from other FHLBs but also include income from other third party investors. These fees are designed to compensate us for the expenses we incur to administer the program. Our expenses relating to the MPF fees earned are included in the relevant line items in the noninterest expense table shown above. The following table summarizes MPF related fees and expenses.

For the years ended December 31,	2021	2020
MPF fees earned	\$ 46	\$ 54
Expenses related to MPF fees earned	34	39



(Dollars in tables in millions except per share amounts unless otherwise indicated)

Assessments

We record the Affordable Housing Program (AHP) assessment expense at a rate of 10% of income before assessments, excluding interest expense on MRCS. See **Note 11 - Affordable Housing Program** to the financial statements for further details.

Other Comprehensive Income (Loss)

For comparisons to 2019 see **Other Comprehensive Income (Loss)** on page 51 in our 2020 Form 10-K.

For the years ended December 31,	For the years ended December 31,		Balance remaining
	2021	2020	in AOCI as of
			December 31, 2021
Net unrealized gain (loss) available-for-sale debt securities	\$ 74	\$ 188	\$ 366
Noncredit OTTI held-to-maturity debt securities	—	85	—
Net unrealized gain (loss) cash flow hedges	54	(27)	(11)
Postretirement plans	7	(10)	(13)
Other comprehensive income (loss)	\$ 135	\$ 236	\$ 342

Net unrealized gain (loss) on available-for-sale debt securities

The net unrealized gain on our available-for-sale (AFS) portfolio for 2021 compared to 2020 is primarily due to spreads to swaps reversing the widening (losses) initially experienced in the first quarter of 2020 resulting from the effects of the COVID-19 pandemic on the financial markets. As these securities approach maturity, we expect these net unrealized gains to reverse (since we expect to receive par value at maturity).

Noncredit OTTI on held-to-maturity debt securities

We recorded unrealized noncredit impairments on HTM debt securities during the last financial crisis of 2008. From our sale of HTM PLMBS in October 2020, we realized a gain on these noncredit impairments as our remaining loss balance in AOCI went to zero. See **Note 2 - Summary of Significant Accounting Policies** for more details on our sale of PLMBS during October 2020.

Net unrealized gain (loss) on cash flow hedges

The net unrealized gain on cash flow hedges for 2021 compared to 2020 was primarily driven by the overall increase in long-term interest rates and the interest rate curve steepening during 2021.

Postretirement plans

The gain recorded in 2021 was primarily due to an actuarial adjustment resulting from an increase in the discount rate used to calculate postretirement benefits.

We did not recognize any instrument-specific credit risk in our statements of comprehensive income as of December 31, 2021 due to our credit standing. For further details on the activity in our Other Comprehensive Income (Loss) see **Note 13 - Accumulated Other Comprehensive Income (Loss)** to the financial statements.



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Statements of Condition

As of	December 31, 2021	December 31, 2020
Cash and due from banks, interest bearing deposits, federal funds sold, and securities purchased under agreement to resell	\$ 13,167	\$ 18,641
Investment debt securities	25,461	24,549
Advances	48,049	46,695
MPF Loans held in portfolio, net of allowance for credit losses	9,843	10,038
Other, net of allowance for credit losses	434	433
Assets	\$ 96,954	\$ 100,356
Consolidated obligation discount notes	\$ 24,563	\$ 48,643
Consolidated obligation bonds	63,373	42,670
Other	2,266	2,754
Liabilities	90,202	94,067
Capital stock	2,149	2,010
Retained earnings	4,261	4,072
Accumulated other comprehensive income (loss)	342	207
Capital	6,752	6,289
Total liabilities and capital	\$ 96,954	\$ 100,356

Cash and due from banks, interest bearing deposits, federal funds sold, and securities purchased under agreements to resell

Amounts held in these typically overnight accounts will vary each day based on the following:

- Interest rate spreads between federal funds sold and securities purchased under agreements to resell and our debt;
- Liquidity requirements;
- Counterparties available; and
- Collateral availability on securities purchased under agreements to resell.

In the fourth quarter of 2021, we maintained a sufficient pool of liquidity to support anticipated member demand for advances and letters of credit.

Investment Debt Securities

Investment debt securities increased due to purchases in our investment debt securities portfolio in 2021. This increase was partially offset by declines in our MBS/ABS securities that matured or paid down.

Advances

Advance balances slightly increased at the end of 2021 compared to year end 2020. We believe many of our depository members experienced an inflow of deposits on their balance sheets along with reduced loan demand, while also having access to other liquidity sources as a result of certain government actions related to the COVID-19 pandemic. Although these factors continued to reduce our depository members' need for advances, advance borrowing by insurance company members has offset the decline. Advance balances will vary based primarily on member demand or need for wholesale funding and the underlying cost of the advance to the member. It is possible that member demand for our advances could decline in future periods should their funding needs change, or to the extent they elect alternative funding resources. In addition, as our advances with captive insurance companies mature, our total advance levels may decrease. For a discussion of risks relating to our captive insurance companies, and of risks relating to our advance levels as a result of the COVID-19 pandemic, see **Risk Factors** on page 22.



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The following table sets forth the current period par amount of advances outstanding for the five largest advance borrowers.

As of	December 31, 2021		
JPMorgan Chase Bank NA	^a \$	11,000	23.1 %
The Northern Trust Company		3,505	7.3 %
BMO Harris Bank NA		3,000	6.3 %
State Farm Mutual Automobile Insurance Company		2,515	5.3 %
The Northwestern Mutual Life Insurance Company		2,051	4.3 %
All other borrowers		25,637	53.7 %
Total par value	\$	47,708	100.0 %

^a Effective February 19, 2021, we terminated One Mortgage Partners Corp.'s ("OMP") membership in connection with the FHFA rule that made captive insurance companies ineligible for FHLB membership. In December 2021, OMP merged with and into its parent company, JPMorgan Chase Bank NA.

The following table presents outstanding advances by type of institution. Former members may withdraw from membership or merge with out-of-district institutions but continue to hold advances.

As of	December 31, 2021		December 31, 2020
Members			
Commercial banks	\$	19,129	\$ 16,902
Savings institutions		1,097	1,331
Credit unions		2,887	3,119
Insurance companies		13,509	24,358
Community Development Financial Institutions		30	30
Members total		36,652	45,740
Former members and Housing Associates		11,056	80
Total at par		47,708	45,820
Fair value hedging and other adjustments		341	875
Balance on the statements of condition	\$	48,049	\$ 46,695



(Dollars in tables in millions except per share amounts unless otherwise indicated)

MPF Loans Held in Portfolio, Net of Allowance for Credit Losses

MPF Loans held in portfolio slightly decreased as new-acquisition volume was outpaced by paydown and maturity activity. In addition to our MPF Loans held in portfolio, we have MPF off-balance sheet products, where we buy and concurrently resell MPF Loans to Fannie Mae or other third party investors or pool and securitize them into Ginnie Mae MBS.

The following table presents an aging of our MPF Loans Held in Portfolio by terms of contractual maturity. Contractual maturity is determined based on the MPF Loan's amortization schedule.

As of	December 31, 2021
Due in 1 year or less	\$ 366
Due after 1 year through 5 years	1,532
Due after 5 years through 15 years	4,015
Thereafter	3,776
Total unpaid principal balance (excluding loan charge offs)	9,689
Other adjustments, net ^a	159
Total mortgage loans held in portfolio	9,848
Allowance of credit losses on mortgage loans	(5)
Mortgage loans held in portfolio, net	\$ 9,843

^a Consists of loan charge offs, net premiums, credit enhancement, fair value hedging, delivery commitment basis adjustments, and/or deferred loan fees.



(Dollars in tables in millions except per share amounts unless otherwise indicated)

Liquidity, Funding, & Capital Resources

Liquidity

We establish our liquidity position primarily based on the factors outlined below.

- FHFA regulations and guidance.
- Policies established by our Board of Directors.
- Member demand for short- and long-term funds.
- Maturing consolidated obligations as well as obligations arising from our normal operating activities.

We seek to be in a position to meet our members' credit and liquidity needs without maintaining excessive holdings of low-yielding liquid investments or being forced to incur unnecessarily high borrowing costs.

Liquidity from Investments

Our sources of liquidity from investments are short-term liquid assets, primarily overnight federal funds sold and securities purchased under agreements to resell. Our ability to utilize these investments for liquidity purposes may be affected if the credit markets experience disruptions, as discussed below.

- Our ability to use federal funds sold is restricted under our current policy and FHFA regulations. Specifically, we restrict these investments to short maturities and eligible counterparties as discussed in **Unsecured Short Term Investments** on page 79 because such investments are unsecured. If the credit markets experience disruptions, and as a result one of our counterparties became insolvent or otherwise defaulted on their obligation to us, these investments would not satisfy our liquidity needs and we may incur a credit loss.
- Securities purchased under agreements to resell are secured by marketable securities held by a third party custodian. If the credit markets experience disruptions, and as a result one of our counterparties became insolvent or otherwise defaulted on their obligations to us, these investments would not satisfy our liquidity needs if the collateral pledged to secure those obligations has decreased in value. In such cases, we also may suffer a credit loss. A further explanation of our credit loss methodology with respect to these agreements is set forth in **Note 8 – Allowance for Credit Losses** to the financial statements and see **Investment Debt Securities** on page 77 for further discussion and a summary of counterparty credit ratings for these investments.

Other sources of liquidity from investing activities include trading debt securities, maturing advances, and maturing MPF Loans.

Liquidity from Debt

Our source of liquidity from debt is the issuance of new consolidated obligation bonds and discount notes.

Liquidity Measures

We use different measures of liquidity as follows:

Overnight Liquidity - Our overnight liquidity requirement is established by our Asset/Liability Committee. Currently, our Asset/Liability Management Policy (ALM Policy) requires us to maintain overnight liquid assets at least equal to 3.5% of total assets. Under our ALM Policy, overnight liquidity includes money market assets, federal funds sold, deposits, paydowns of advances, MPF Loans with one day to maturity, and inter FHLB loans with one day to maturity. As of December 31, 2021, our overnight liquidity was \$14.0 billion or 14.4% of total assets. This amount represents excess overnight liquidity of \$10.6 billion over the minimum threshold of 3.5% of total assets.

Deposit Coverage - To support our member deposits, FHFA regulations require us to have an amount equal to the current deposits received from our members invested in obligations of the U.S. Government, deposits in eligible banks or trust companies, or advances with maturities not exceeding five years. As of December 31, 2021, we had excess liquidity of \$41.1 billion to support member deposits.

Liquidity Reserves - The FHFA advisory bulletin on FHLB liquidity (the "Liquidity AB") requires that: (i) we hold positive cash flow assuming no access to the capital markets for a period of between ten to thirty calendar days and assuming renewal of all maturing advances, and (ii) we maintain liquidity reserves between one and 20 percent of our outstanding letter of credit commitments. In connection with the Liquidity AB, the FHFA also issued a supervisory letter that identifies initial applicable thresholds for certain measures identified in the Liquidity AB. As market conditions warrant, the FHFA may update its supervisory



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letter to identify new thresholds within the ranges set forth in the Liquidity AB.

To satisfy our current liquidity requirements, we generally maintain increased balances in short-term or liquid investments. Depending on market conditions, the Liquidity AB may require the Bank to hold an additional amount of liquid assets, which could reduce the Bank’s ability to invest in higher-yielding assets, and may in turn negatively impact net interest income. To the extent that the Bank adjusts pricing for its short-term advances and letters of credit, these products may become less competitive, which may adversely affect advance and capital stock levels as well as letters of credit levels. For additional discussion of how our liquidity requirements may impact our earnings, see **Risk Factors** starting on page 22.

In addition, we fund certain shorter-term or overnight investments and advances with debt that has a maturity that extends beyond the maturities of the related investments or advances. The Liquidity AB provides guidance on maintaining appropriate funding gaps for three-month (-10% to -20%) and one-year (-25% to -35%) maturity horizons. Subject to market conditions, our cost of funding may increase if we are required to achieve the appropriate funding gap by using longer term funding, on which we generally pay higher interest than on our short-term funding.

We are sensitive to maintaining an appropriate liquidity and funding balance between our financial assets and liabilities, and we measure and monitor the risk of refunding such assets as liabilities mature (refunding risk). In measuring the level of assets requiring refunding, we take into account their contractual maturities, as further described in the notes to the financial statements. In addition, we make certain assumptions about their expected cash flows. These assumptions include: calls for assets with such features, projected prepayments and scheduled amortizations for our MPF Loans held in portfolio, MBS and ABS investments.

The following table presents the unpaid principal balances of (1) MPF Loans held in portfolio, (2) AFS securities, and (3) HTM securities (including ABS and MBS investments), by expected principal cash flows. The table is illustrative of our assumptions about the expected cash flow of our assets, including prepayments made in advance of maturity.

As of December 31, 2021	MPF Loans Held in Portfolio	Investment Debt Securities	
		Available-for Sale	Held-to- Maturity
Year of Expected Principal Cash Flows (including prepayments)			
One year or less	\$ 1,872	\$ 4,117	\$ 1,399
After one year through five years	3,748	2,737	284
After five years through ten years	2,223	11,316	110
After ten years	1,841	3,268	8
Total	\$ 9,684	\$ 21,438	\$ 1,801

We consider our liabilities available to fund assets until their contractual maturity. For further discussion of the liquidity risks related to our access to funding, see **Risk Factors** starting on page 22.

FHLB P&I Funding and Contingency Plan Agreement. We have entered into an agreement with the other FHLBs and the Office of Finance regarding the Federal Reserve’s intraday funding process to provide a mechanism for the FHLBs to provide liquidity to avert a shortfall in the timely payment of principal and interest on any consolidated obligations by one or more FHLBs. We may increase our liquidity ratio for a designated month out of an 11 month rotation to mitigate the risk that we are required to fund under the FHLB P&I Funding and Contingency Plan Agreement. Through the date of this report, no FHLB has been required to fund under this contingency agreement.

Funding

Conditions in Financial Markets

During the fourth quarter of 2021, U.S. market conditions continued to improve, although the spread of the Omicron variant of COVID-19 created economic uncertainty in the latter part of the year. At its November 2021 meeting, the Federal Open Market Committee (FOMC) maintained the target for the federal funds rate at a range between 0% and 0.25% and announced that it would begin reducing the monthly pace of asset purchases by \$10 billion for U.S. Treasury securities and \$5 billion for agency MBS. At its meeting in December 2021, the FOMC left the federal funds rate unchanged, and stated that it would reduce the pace of its monthly asset purchases by \$20 billion for U.S. Treasury securities and \$10 billion for agency MBS. As of December 2021, the Federal Reserve is expected to conclude asset purchases in the first quarter of 2022, in preparation for expected rate



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hikes. Uncertainty regarding the U.S. Government's debt ceiling continued to be a significant concern during the fourth quarter of 2021, and as a result, we closely monitored our liquidity position in preparation for the possibility of a disorderly market caused by potential government debt defaults. On December 15, 2021, the U.S. Government raised the federal borrowing limit by \$2.5 trillion to avoid potential government default.

The extent to which the COVID-19 pandemic will affect or will continue to affect our business, financial condition, and results of operations will continue to depend on future developments, which are uncertain and cannot be predicted. For a discussion of the funding risks to the Bank as a result of the COVID-19 pandemic, including risks related to government action in response to the impact of the pandemic, see **Risk Factors** on page 22.

We maintained ready access to funding throughout 2021.

LIBOR Transition

Following the United Kingdom's (U.K.) Financial Conduct Authority (FCA)'s 2017 announcement of its intention to cease sustaining the LIBOR indices after 2021, the Alternative Reference Rates Committee (ARRC) identified SOFR as its recommended alternative rate. SOFR is based on a broad segment of the overnight Treasuries repurchase market and is intended to be a measure of the cost of borrowing cash overnight collateralized by Treasury securities. The FHLB System issued its first SOFR-linked debt in the market on November 13, 2018.

On March 5, 2021, the FCA announced that, with respect to USD LIBOR, the 1-week and 2-month USD LIBOR would cease to be provided after December 31, 2021, and the remaining USD LIBOR tenors will cease to be provided or no longer be representative immediately after June 30, 2023. The FCA announced that it would consult whether to require LIBOR's administrator (the Intercontinental Exchange Benchmark Administration Limited) to publish certain frequently used USD LIBOR tenors on a non-representative, synthetic basis after such date. FCA's announcement constitutes an index cessation event under the International Swaps and Derivatives Association's (ISDA) 2020 IBOR Fallbacks Protocol and IBOR Fallbacks Supplement, and as a result, the fallback spread adjustment is fixed as of the date of the announcement. We do not have assets indexed to the 1-week and 2-month USD LIBOR, and many of our assets and liabilities are indexed to the remaining USD LIBOR tenors, which will no longer be provided after June 30, 2023.

Additionally, in accordance with a 2019 FHFA supervisory letter, we ceased entering into option embedded advance products that reference LIBOR and ceased purchasing investments that reference LIBOR and mature after December 31, 2021. We have also suspended transactions in certain structured advances and advances with terms directly linked to LIBOR that mature after December 31, 2021 and we no longer enter into consolidated obligation bonds and derivatives with swaps, caps, or floors indexed to LIBOR that terminate after December 31, 2021. Further, on July 1, 2021, the FHFA issued an additional supervisory letter setting forth its expectations that the FHLBs should be prudent in their use of non-SOFR-based alternative reference rates, and should avoid use of alternative reference rates that are not based on underlying transactions or that introduce further model risk. The letter also requires that an FHLB provide advance notice to its examiner-in-charge of its plans to use a non-SOFR alternative reference rate. For further discussion of the risks related to the replacement of LIBOR, see the **Risk Factors** section starting on page 22.

We continue to evaluate and plan for the eventual replacement of the LIBOR benchmark interest rate, including the likelihood of SOFR as the primary replacement rate for investments and advances. We have developed a LIBOR transition action plan and convened a project team to implement the transition, which is led by a senior executive and comprised of representatives from various areas across the Bank. Our Asset-Liability Management Committee (ALCO) is the management committee responsible for overseeing the transition from LIBOR. In assessing our current exposure to LIBOR, we developed an inventory of financial instruments impacted and identified contracts that would require adding or adjusting the "fallback" language which provides for contractual alternatives to the use of LIBOR when LIBOR cannot be determined based on the method provided in the agreement. We have amended the terms of certain advance products to include fallback language.

For over-the-counter derivatives, we adhered to the ISDA 2020 IBOR Fallbacks Protocol. For cleared derivatives, as part of the transition from LIBOR to SOFR, our clearinghouses revised their discounting methodology used to calculate the present value of future cash flows and price alignment on variation margin for USD cleared swaps from the daily effective federal funds rate (EFFR) to SOFR. Both of our clearinghouses have implemented their own unique cash and basis swap compensation mechanisms for market participants to neutralize any value transfer discrepancies from the LIBOR to SOFR conversion. Further, each clearinghouse announced its own proposal for the conversion process of LIBOR-linked cleared derivatives to risk-free rates, which is expected to occur at or shortly before the effective date of LIBOR discontinuation. We continue to monitor the market-wide efforts to address fallback language related to cleared derivatives and investment securities as well as fallback language for new activities and issuances of financial instruments. We continue to assess our operational readiness, including updating our processes and information technology systems to support the transition from LIBOR to an alternative reference rate.



(Dollars in tables in millions except per share amounts unless otherwise indicated)

Market activity in SOFR-indexed financial instruments continues to increase, including the emergence of a SOFR-based derivative market, and we continue to participate in the issuance of SOFR-indexed consolidated bonds. For the year ended December 31, 2021, we have participated in the issuance of \$12.5 billion in SOFR-linked consolidated bonds. We are using federal funds overnight index swaps (Fed Funds OIS) and SOFR-indexed swaps as an interest rate hedging strategy for financial instruments that do not have embedded options, as an alternative to using LIBOR when entering into new derivative transactions. We are offering SOFR-linked advances to our members, and for the year ended December 31, 2021, have issued \$1.0 billion in SOFR-linked advances. For a discussion of risks relating to our use of SOFR-linked consolidated obligations and advances, see **Risk Factors** on page 22. We also offer Discount Note-index floater advances, which some members have used as alternatives to LIBOR-linked advance products.

Variable-Rate Financial Instruments by Interest-Rate Index and LIBOR-Indexed Financial Instruments

We have advances, investment securities, consolidated bonds, and derivatives with interest rates indexed to LIBOR. The following tables present our variable rate financial instruments by interest-rate index at December 31, 2021 and may not include instruments that indirectly incorporate LIBOR or another interest rate index. The tables also do not consider the impact of any fallback language contained in our financial products. ABS and MBS are presented by contractual maturity; however, their expected maturities will likely differ from contractual maturities as borrowers may have the right to call or prepay obligations with or without call or prepayment fees. We sold LIBOR-indexed AFS and HTM PLMBS during October 2020, as discussed in **Note 2 – Summary of Significant Accounting Policies** to the financial statements.

As of December 31, 2021	Advances	Investments	Consolidated Obligations
Principal amount of variable rate instruments outstanding ^a			
LIBOR	\$ 642	\$ 2,864	\$ 250
SOFR	1,013	507	18,070
Treasury	—	111	—
Other	18,090 ^b	1	—
Total	\$ 19,745	\$ 3,483	\$ 18,320
Overnight, 1 month, 3 month, 6 month and 12-Month US Dollar LIBOR that cease or will no longer be representative immediately after June 30, 2023			
Due in 2022	\$ 298	\$ —	\$ 250
Due through June 30, 2023	36	—	—
Due thereafter	308	2,864	—
Total	\$ 642	\$ 2,864	\$ 250
Principal amount of SOFR-linked instruments issued YTD through			
December 31, 2021	\$ 1,017	\$ —	\$ 12,465

^a With respect to advances, includes fixed rate advances that have cap/floor optionality linked to an interest rate index.

^b Consists primarily of advances indexed to consolidated obligation yields.



(Dollars in tables in millions except per share amounts unless otherwise indicated)

The following table details our variable rate financial instruments by pay or receive leg and whether cleared or uncleared.

As of December 31, 2021	Derivative Notional Amount Outstanding			
	Pay Leg		Receive Leg	
Interest rate swaps outstanding				
Fixed rate	\$	35,948	\$	37,143
LIBOR		3,162		16,543
SOFR		12,153		5,366
OIS		21,829		14,040
Total interest rate swaps	\$	73,092	\$	73,092
Overnight, 1 month, 3 month, 6 month and 12 month US Dollar LIBOR that cease or will no longer be representative immediately after June 30, 2023				
	LIBOR Pay Leg		LIBOR Receive Leg	
	Cleared	Uncleared	Cleared	Uncleared
Terminates in 2022	\$ 1,768	\$ 45	\$ 404	\$ 271
Terminates through June 30, 2023	767	35	458	66
Terminates thereafter	416	131	8,877	6,467
Total	2,951	211	9,739	6,804

Liquidity Analysis - Statement of Cash Flows

Our assets and liabilities support our mission to provide our member shareholders competitively priced funding, a reasonable return on their investment in our capital stock, and support for their community investment activities. 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. We believe the cash flows from our operating and financing activities are sufficient to fund both our operating and investing liquidity needs. The following tables compare our significant cash flow activities in 2021 and 2020.

For comparisons to 2019 see **Liquidity Analysis - Statement of Cash Flows** on page 51 in our 2020 Form 10-K.

Net cash flows from operating activities with significant activity

For the years ended December 31,	2021	2020
Net income	\$ 275	\$ 374
Net amortization (accretion)	132	137
Change in net fair value on derivatives and hedging activities	186	(579)
Realized (gain) loss on sale of HTM securities	—	(103)
Other	139	(144)
Net cash provided by (used in) operating activities	\$ 732	\$ (315)

The majority of our operating cash outflows in 2020 were related to cash sent daily to clearinghouses to settle mark-to-market derivative positions due to the COVID-19 pandemic impact on market volatility. These cash flows partially reversed during 2021 as markets returned to normal and interest rates increased. In 2020 we also had a significant realized gain on a one-time sale of HTM securities related to reference rate reform. In both years, net amortization (accretion) represents a significant adjustment to operating cash flows for noncash expense (income).



(Dollars in tables in millions except per share amounts unless otherwise indicated)

Net cash flows from investing activities with significant activity

For the years ended December 31,	2021	2020
Net cash flows on interest bearing deposits, federal funds sold, and securities purchased under agreement to resell	\$ 1,978	\$ 686
Net cash flows on investment debt securities	(1,227)	(725)
Net cash flows on advances	(1,887)	4,301
Net cash flows on MPF Loans held in portfolio	114	(119)
Other	(15)	(38)
Net cash provided by (used in) investing activities	\$ (1,037)	\$ 4,105

Our investing activities consist predominantly of investments in liquid assets, investment debt securities, advances, and MPF Loans in portfolio. The reasons for the changes in net cash provided by (used in) investing activities and changes in allocation within investing activities are discussed below.

- In both 2020 and 2021, our liquid assets were reduced as we funded increased investment debt securities. We maintain a sufficient pool of liquidity to support anticipated member demand for advances and letters of credit.
- We experienced a decrease in demand for advances during 2020 as members had an inflow of deposits on their balance sheets, along with reduced loan demand and access to other liquidity sources, as a result of government actions related to the COVID-19 pandemic. In 2021, there was a slight reversal in this decrease in demand, and increased borrowing by our insurance company members more than offset decreased borrowing from our other members.
- In both 2020 and 2021, our net changes in cash flows from MPF Loans held in portfolio were minimal, as demand for new loans largely offset loan paydowns. The majority of our MPF Loan activity was related to our off-balance sheet MPF products.

Net cash flows from financing activities with significant activity

For the years ended December 31,	2021	2020
Net cash provided by (used in) financing activities -		
Net cash flows on consolidated obligation discount notes	\$ (24,077)	\$ 7,040
Net cash flows on consolidated obligation bonds	21,115	(7,940)
Other	(229)	622
Net cash provided by (used in) financing activities	\$ (3,191)	\$ (278)

Our financing activities primarily reflect cash flows related to issuing and repaying consolidated obligation bonds and discount notes. The change in net cash provided by (used in) financing activities and change in funding allocations are discussed below.

- In 2021, we paid down discount notes and increased our use of bonds to align with advantageous funding opportunities with longer-termed debt. In 2020, our use of discount notes increased while we paid down bonds. Overall, our consolidated obligations decreased in 2021 to match our smaller balance sheet.
- Other primarily consists of changes in member deposits. Members reported they had excess liquidity in 2020 as noted in net cash flows on advances in the investing activities section above, thus they deposited more than the usual amount of funds. In 2021, that partially reversed as the economy improved.

Sources of Funding

We fund our assets principally with consolidated obligations (bonds and discount notes) issued through the Office of Finance, deposits, and capital stock. As of December 31, 2021, our consolidated obligations were rated AA+ (with outlook stable) by S&P and Aaa (with outlook stable) by Moody's. Consolidated obligations have GSE status although they are not obligations of the United States and the United States does not guarantee them.

Use of short-term debt offers us certain advantages which are weighed against the increased risk of using short-term debt. Traditionally we have benefited from interest rates below LIBOR rates for our short-term debt which has resulted in a positive impact on net interest income when used to fund LIBOR-indexed assets. We expect similar relationships to hold as we transition away from LIBOR to other indexes. For a discussion of risks relating to the LIBOR transition, please see **Risk Factors** on page



(Dollars in tables in millions except per share amounts unless otherwise indicated)

22.

We comply with FHFA regulations that require we maintain the following types of assets free from any lien or pledge in an amount at least equal to the amount of our consolidated obligations outstanding:

- cash;
- obligations of, or fully guaranteed by, the United States;
- secured advances;
- mortgages, which have any guaranty, insurance, or commitment from the United States or any agency of the U.S. government; and
- investments described in Section 16(a) of the FHLB Act, which, among other items, includes securities that a fiduciary or trust fund may purchase under the laws of the state in which the FHLB is located.

At December 31, 2021, we had eligible assets free from pledges of \$96.1 billion, compared to our outstanding consolidated obligations of \$87.9 billion.

The Office of Finance has responsibility for the issuance of consolidated obligations. It also services all outstanding debt, provides us with information on capital market developments, manages our relationship with ratings agencies with respect to consolidated obligations, and prepares the FHLBs' combined quarterly and annual financial statements. The Office of Finance will allocate the proceeds from the issuance of consolidated obligations that cannot be issued in sufficient amounts to satisfy all FHLB demand for funding during periods of financial distress and when its existing allocation processes are deemed insufficient. In general, the proceeds in such circumstances will be allocated among the FHLBs based on regulatory capital unless the Office of Finance determines that there is an overwhelming reason to adopt a different allocation method. As is the case during any instance of disruption in our ability to access the capital market, market conditions or this allocation could adversely impact our ability to finance our operations, which could thereby adversely impact our financial condition and results of operations.

Consolidated Obligation Bonds

Consolidated obligation bonds (bonds) satisfy term funding requirements and are issued under various programs. The maturities of these securities may range from less than one year to over 20 years, but they are not subject to any statutory or regulatory limits on maturity. The bonds can be fixed- or adjustable-rate, and callable or non-callable. We also offer fixed-rate, non-callable (bullet) bonds via the FHLBs' Tap issue program. This program uses specific maturities that may be reopened daily during a three month period through competitive auctions. The goal of the Tap program is to aggregate frequent smaller issues into a larger bond issue that may have greater market liquidity. See **Note 10 - Consolidated Obligations** to the financial statements for information on the remaining life of our consolidated obligation bonds by contractual maturity.

Although we issue fixed-rate bullet and callable bonds, we may also issue bonds that have adjustable rates, step-up rates that step-up or increase at fixed amounts on predetermined dates, zero-coupons, and other types of rates. See **Note 10 - Consolidated Obligations** to the financial statements for details. Bonds are issued and distributed daily through negotiated or competitively bid transactions with approved underwriters or selling groups.

We receive 100% of the net proceeds of a bond issued via direct negotiation with underwriters of FHLB debt when we are the only FHLB involved in the negotiation; we are the sole FHLB that is primary obligor on the bond in those cases. When we and one or more other FHLBs jointly negotiate the issuance of a bond directly with underwriters, we receive the portion of the proceeds of the bond agreed upon with the other FHLBs; in those cases, we are primary obligor for the pro rata portion of the bond based on proceeds received. The majority of our bond issuance is conducted via direct negotiation with underwriters of the FHLB bonds, some with, and some without, participation by other FHLBs.

We may also request specific bonds to be offered by the Office of Finance for sale via competitive auction conducted with underwriters in a bond selling group. One or more other FHLBs may request amounts of the same bonds to be offered for sale for their benefit via the same auction. We may receive from 0% to 100% of the proceeds of the bonds issued via competitive auction depending on:

- the amount and cost for the bonds bid by underwriters;
- the maximum cost we or other FHLBs participating in the same issue, if any, are willing to pay for the bonds; and
- guidelines for allocation of the bond proceeds among multiple participating FHLBs administered by the Office of Finance.

We also participate in the Global Issuances Program, under which the FHLB System, through the Office of Finance, maintains a process for scheduled issuance of global fixed-rate consolidated bonds. As part of this process, management from each FHLB determines and communicates a firm commitment to the Office of Finance for an amount of scheduled global debt to be issued



(Dollars in tables in millions except per share amounts unless otherwise indicated)

on its behalf. If the FHLBs' orders do not meet the minimum debt issuance size, each FHLB receives an allocation of proceeds equal to the larger of the FHLB's commitment or the ratio of the individual FHLB's capital to total capital of all of the FHLBs. If the FHLBs' commitments exceed the minimum debt issuance size, then the proceeds are allocated based on actual commitment amount. The FHLBs can, however, pass on any scheduled calendar slot and decline to issue any global consolidated obligations under this program upon agreement of at least eight of the 11 FHLBs.

Consolidated Obligation Discount Notes

The FHLBs sell consolidated obligation discount notes (discount notes) in the capital markets to provide short-term funds for advances to members, for seasonal and cyclical fluctuations in savings flows, and for mortgage financing and investments. Discount notes have maturities up to 365 days and are sold through a selling group and through other authorized securities dealers. Discount notes are sold at a discount and mature at par.

On a daily basis, we may request specific amounts of discount notes with specific maturity dates to be offered by the Office of Finance at a specific cost for sale to underwriters in the selling group. One or more other FHLBs may also request an amount of discount notes with the same maturity to be offered for sale for their benefit on the same day. The Office of Finance commits to issue discount notes on behalf of the participating FHLBs when underwriters in the selling group submit orders for the specific discount notes offered for sale. We may receive from zero to 100% of the requested proceeds depending on: the maximum costs we or other FHLBs participating in the same discount notes, if any, are willing to pay for the discount notes; the amount of orders for the discount notes submitted by underwriters; and guidelines for allocation of discount note proceeds among multiple participating FHLBs administered by the Office of Finance.

Twice weekly, we may also request specific amounts of discount notes with fixed maturity dates ranging from four weeks to 26 weeks to be offered by the Office of Finance for sale via competitive auction conducted with underwriters in the selling group. The bi-weekly discount note auction uses a single-price (Dutch) award method to determine winning bids. One or more FHLBs may also request amounts of those same discount notes to be offered for sale for their benefit via the same auction. We may receive from zero to 100% of the requested proceeds depending on the amounts and costs for the discount notes bid by the underwriters and guidelines for allocation of discount note proceeds among multiple participating FHLBs administered by the Office of Finance. The majority of our issuances are conducted via the twice weekly auctions.

Deposits

We accept deposits from our members, institutions eligible to become our members, institutions for which we are providing correspondent services, other FHLBs, and other government instrumentalities such as the FDIC. We offer several types of deposits to our deposit customers including demand, overnight, and term deposits. Deposits are not a significant source of funding for our operations and are primarily offered for the convenience of our members doing business with us.

Deposits totaled \$1.0 billion at December 31, 2021, compared to \$1.3 billion at December 31, 2020. All deposits are uninsured and the balance of deposits varies depending on market factors, such as the attractiveness of our deposit pricing relative to the rates available on alternative money market instruments, our members' investment preferences with respect to the maturity of their investments, and our members' liquidity. Interest-bearing demand and overnight deposits represented 80.2% and 68.1% of our deposits at December 31, 2021 and 2020, with the remaining deposits being term deposits and non-interest-bearing deposits.

Interest-bearing demand and overnight deposits pay interest based on a daily interest rate. The average balances of demand and overnight deposits and the weighted-average interest rates paid on demand and overnight deposits are detailed in the below table. Term deposits pay interest based on a fixed rate determined at the issuance of the deposit. The average balances of term deposits and the weighted-average interest rates paid on term deposits are also detailed in the below table.

For the years ended December 31,	2021	2020	2019
Average balances of demand and overnight deposits	\$ 911	\$ 1,032	\$ 630
Weighted-average interest rates paid on demand and overnight deposits	— % ^a	0.23 %	2.13 %
Average balances of term deposits	\$ 1	\$ 18	\$ —
Weighted-average interest rates paid on term deposits	0.11 %	0.11 %	— %

^a Less than 1 bp (basis point).



(Dollars in tables in millions except per share amounts unless otherwise indicated)

Capital Resources

Capital Rules

The Bank implemented an amended and restated Capital Plan, effective May 3, 2021 (the Capital Plan).

Under our Capital Plan our stock consists of two sub-classes of stock, Class B1 stock and Class B2 stock (together, Class B stock), both with a par value of \$100 per share and redeemable on five years' written notice, subject to certain conditions. Under the Capital Plan, each member is required to own capital stock in an amount equal to the greater of a membership stock requirement or an activity stock requirement. All stock that supports a member's activity stock requirement with the Bank is classified as Class B1 activity stock. Any additional amount of stock necessary for the total amount of Class B stock held to equal a member's minimum investment amount will be classified as Class B2 membership stock. Members purchase Class B2 membership stock to satisfy their membership stock requirement with the Bank. Stock held in excess of a member's minimum investment requirement is classified as Class B2 excess capital stock.

The Capital Plan reflects the Bank's commitment to provide members a reasonable return on their investment by allowing members who engage in advance activity to hold more Class B1 activity stock. In order to maintain capacity to offer MPF on-balance sheet products and to ensure the Bank can continue to support member demand for letters of credit, effective May 3, 2021, the Bank began assessing capital stock for these products, as further described in the table below.

The following table reflects the ranges of capital stock requirements permitted under our Capital Plan and requirements at year-end 2021.

Capital Plan Requirement	December 31, 2021	Ranges Permitted Under Capital Plan
% of Mortgage Assets ^a	0.40%	0.20% - 1%
Membership Stock Floor	\$10,000	None
Membership Stock Cap	\$5 million	\$1 million - \$25 million
Advances Activity Stock Requirement ^b	4.50%	4%-5%
MPF Activity Stock Requirement	2% ^c	0%-5%
Letters of Credit Activity Stock Requirement	0.10% ^d	0.10%-2% ^e

^a The percentage of mortgage assets is used to calculate a member's membership stock requirement.

^b The Board of Directors may adjust this percentage to as low as 2% for certain advances and has currently authorized a pool of funds available for advances that can be capitalized at 2% under the Bank's Reduced Capitalization Advance Program (RCAP).

^c Effective May 3, 2021, for MPF on-balance sheet products (which includes MPF Original, MPF 125, MPF 35, and MPF Government loans), the activity stock requirement is 2% of the principal loan amount sold into the MC.

^d Effective May 3, 2021, for letters of credit, the activity stock requirement is 0.10% of the notional amount of all letters of credit outstanding on behalf of a member.

^e Effective May 3, 2021, in connection with implementing a new activity stock requirement for letters of credit, the Bank amended its Capital Plan to increase the lower end of the range for the letters of credit activity stock requirement from 0 to 0.10%. Therefore, the current range for the letter of credit activity stock requirement is 0.10% to 2%.

Membership stock requirements are recalculated annually, whereas the activity stock requirement and any automatic conversion of Class B2 stock to Class B1 stock will apply on a daily basis.

We may only redeem or repurchase capital stock from a member if, following the redemption or repurchase, the member continues to meet its minimum investment requirement and we remain in compliance with our regulatory capital requirements discussed below.

Members that withdraw from membership must wait at least five years after their membership was terminated and all of their capital stock was redeemed or repurchased before being readmitted to membership in any FHLB.

Under the terms of our Capital Plan, our Board of Directors is authorized to amend the Capital Plan, and the FHFA must approve all such amendments before they become effective.



(Dollars in tables in millions except per share amounts unless otherwise indicated)

Reduced Capitalization Advance Program

During 2021, we continued to offer our Reduced Capitalization Advance Program (RCAP), which allows members to borrow one or more advances with an activity stock requirement of only 2% for the life of the advance instead of the current 4.5% requirement under our Capital Plan's general provisions. As of December 31, 2021, RCAP advances outstanding totaled \$20.6 billion to 351 members. We may implement future programs for advances with a reduced activity stock requirement that may or may not have the same characteristics as current RCAP offerings.

Minimum Capital Requirements

We are subject by regulation to the following three capital requirements:

- total regulatory capital ratio;
- leverage capital ratio; and
- risk-based capital.

For tables showing our compliance with the total capital ratio and leverage capital ratio as well as further details on all of our capital requirements, see **Note 12 - Capital and Mandatorily Redeemable Capital Stock (MRCS)** to the financial statements.

Under the risk-based capital requirement we must maintain permanent capital equal to the sum of our (i) credit risk capital requirement, (ii) market risk capital requirement, and (iii) operational risk capital requirement, as outlined below:

- **Credit Risk Capital Requirement.** The credit risk capital requirement is the sum of our individual capital charges for all advances, residential mortgage assets, CMOs, non-mortgage assets, non-rated assets, off-balance sheet items, and derivatives contracts. These capital charges are calculated using the methodologies and percentages assigned by the FHFA regulations to each class of assets.
- **Market Risk Capital Requirement.** The market risk capital requirement is 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, where the market value of our portfolio at risk is determined using an FHFA approved internal market-risk model pursuant to FHFA regulations.
- **Operational Risk Capital Requirement.** The operational risk capital requirement is 30% of the sum of our (a) credit risk capital requirement and (b) market risk capital requirement.

The following table summarizes our risk-based capital amounts. Under the FHFA regulation on capital classifications and critical capital levels for the FHLBs, we were adequately capitalized.

As of	December 31, 2021	December 31, 2020
Capital stock	\$ 2,149	\$ 2,010
Mandatorily redeemable capital stock (MRCS) recorded as a liability	247	279
Retained earnings	4,261	4,072
Total permanent capital	\$ 6,657	\$ 6,361
Credit risk capital	\$ 331	\$ 297
Market risk capital	667	924
Operational risk capital	299	366
Total risk based capital requirement	\$ 1,297	\$ 1,587
Excess permanent capital stock over risk based capital requirement	\$ 5,360	\$ 4,774

Additionally, the FHFA considers the proportion of capital stock to assets, measured on a daily average basis at month end, when assessing each FHLB's capital management practices. To maintain the recommended level of capital stock under this FHFA guidance, we may reduce investments as necessary, which may have a negative impact on our financial condition and results of operation. If our balance sheet composition changes in the future, we may consider other capital management measures to maintain the recommended ratio of at least two percent of capital stock to total assets. This capital stock ratio does not include other components of regulatory capital, such as retained earnings.



(Dollars in tables in millions except per share amounts unless otherwise indicated)

Statutory and Regulatory Restrictions on Capital Stock Repurchase and Redemption

In accordance with the FHLB Act, our capital stock is considered putable with restrictions given the significant restrictions on the obligation/right to redeem.

We cannot redeem shares of stock from any member if:

- the principal or interest on any consolidated obligation is not paid in full when due;
- we fail to certify in writing to the FHFA 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;
- we notify the FHFA that we cannot provide the required quarterly certification, or 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 current obligations; or
- we actually fail to comply with statutory or regulatory liquidity requirements or to timely and fully meet all of our current obligations, or enter or negotiate to enter into an agreement with one or more other FHLBs to obtain financial assistance to meet our current obligations.

Additional statutory and regulatory restrictions on the redemption and repurchase of our capital stock include the following:

- In no case may we redeem or repurchase capital stock if, following such redemption, we would fail to satisfy our minimum regulatory capital requirements established by the GLB Act or the FHFA.
- In no case may we redeem or repurchase capital stock if either our Board of Directors or the FHFA determines that we have incurred, or are likely to incur, losses resulting or expected to result in a charge against capital stock. In addition to being able to prohibit capital stock redemptions and repurchases, our Board has a right to call for additional capital stock purchases by members, as a condition of continuing membership, as needed for us to satisfy our statutory and regulatory capital requirements.

The FHLB Act provides that, in accordance with rules, regulations, and orders that may be prescribed by the FHFA, we may be liquidated or reorganized and our capital stock paid off and retired, in whole or in part, after paying or making a provision for payment of our liabilities. The FHLB Act further provides that, in connection with any such liquidation or reorganization, any other FHLB may, with the approval of the FHFA, acquire our assets and assume our liabilities, in whole or in part.



(Dollars in tables in millions except per share amounts unless otherwise indicated)

Capital Amounts

The following tables, respectively, presents our five largest holders of regulatory capital stock and reconciles our capital reported in our statements of condition to the amount of capital stock reported for regulatory purposes. MRCS is included in the calculation of the regulatory capital and leverage ratios but is recorded as a liability in the statements of condition.

As of December 31, 2021	Regulatory Capital Stock Outstanding	% of Total Outstanding	Amount of Which is Classified as a Liability (MRCS)
JPMorgan Chase Bank NA ^a	\$ 245	10.2 %	\$ 245
BMO Harris Bank NA	137	5.7 %	—
State Farm Mutual Automobile Insurance Company	113	4.7 %	—
Alliant Credit Union	112	4.7 %	—
The Northwestern Mutual Life Insurance Company	92	3.9 %	—
All other members	1,697	70.8 %	2
Regulatory capital stock	\$ 2,396	100.0 %	\$ 247

	December 31, 2021	December 31, 2020
Capital Stock	\$ 2,149	\$ 2,010
MRCS	247	279
Regulatory capital stock	\$ 2,396	\$ 2,289

Capital stock	\$ 2,149	\$ 2,010
Retained earnings	4,261	4,072
Accumulated other comprehensive income (loss)	342	207
GAAP capital	\$ 6,752	\$ 6,289

^a Effective February 19, 2021, we terminated One Mortgage Partners Corp.'s ("OMP") membership in connection with the FHFA rule that made captive insurance companies ineligible for FHLB membership. In December 2021, OMP merged with and into its parent company, JPMorgan Chase Bank NA.

Accumulated other comprehensive income (loss) in the above table consists of changes in market value of various balance sheet accounts where the change is not recorded in earnings but are instead recorded in equity capital as the income (loss) is not yet realized. For details on these changes please see **Note 13 - Accumulated Other Comprehensive Income (Loss)** to the financial statements.

Components of total GAAP capital changed for the following reasons:

- The increase in capital stock corresponds to our members' increased use of our advances to support their borrowings.
- Total retained earnings increased due to our net income less dividends paid; see **Statements of Capital** on page F-7 for details.



(Dollars in tables in millions except per share amounts unless otherwise indicated)

Repurchase of Excess Capital Stock

Members may request repurchase of excess stock on any business day. Additionally, on a monthly basis, the Bank will repurchase excess stock held by each member or former member that exceeds certain thresholds set by the Bank. All repurchases of excess capital stock, including any future monthly repurchases, will continue until otherwise announced, but remain subject to our regulatory requirements, certain financial and capital thresholds, and prudent business practices.

Repurchase of excess capital stock held by members is subject to compliance with the following financial and capital thresholds both before and after repurchase:

- The ratio of our total capital to total assets is greater than or equal to 4.25%;
- Our ratio of the Bank's market value of equity to book value of equity is at least 85% on a U.S. GAAP basis;
- Our risk-based capital is greater than or equal to 125% of the minimum amount required, as discussed in **Capital Resources** on page 62;
- Compliance with all of our minimum regulatory capital requirements;
- Projected compliance with each of our minimum regulatory capital requirements for the next four quarters using the most recent expected case income projections; and
- Compliance with our contractual obligations under the Joint Capital Enhancement Agreement, as discussed in **Joint Capital Enhancement Agreement with other FHLBs** on the next page.

For further information on amounts of excess stock repurchased, see **Statements of Capital** to the financial statements on page F-7.

Retained Earnings & Dividends

Dividend Payments

FHFA rules state that FHLBs may declare and pay dividends only from previously retained earnings or current net earnings, and may not declare or pay dividends based on projected or anticipated earnings. Under our Capital Plan, any dividend declared on Class B1 shares must be greater than or equal to the dividend declared on Class B2 shares for the same period, and dividends may be paid in the form of cash or stock, or a combination of both. All dividends we have paid since 2011 have been in cash rather than stock. We have paid an enhanced dividend on Class B1 activity stock since the fourth quarter of 2013.

Although we continue to work to maintain our financial strength to support a reasonable dividend, any future dividend payment remains subject to declaration by our Board and will depend on future operating results, our Retained Earnings and Dividend Policy, and any other factors the Board determines to be relevant.

We may not pay dividends if we fail to satisfy our minimum capital and liquidity requirements under the FHLB Act and FHFA regulations. Further, under FHFA regulations, we may not pay any dividends in the form of capital stock if excess stock held by our shareholders is greater than 1% of our total assets or if, after the issuance of such shares, excess stock held by our shareholders would be greater than 1% of our total assets.

Retained Earnings and Dividend Policy

Our Board of Directors has adopted a Retained Earnings and Dividend Policy (Policy) which, as last updated in December 2020, establishes a target for retained earnings to provide a cushion against the potential for loss that could impact shareholder value. Specifically, the Policy requires us to establish an overall target for retained earnings incorporating the following components:

- Risk-based targets based on estimates using regulatory-based estimates for credit risk and market risk, and additional estimates for exposures related to (a) operational risk, (b) repurchase risk arising from obligations to third party investors from loans originated under the MPF Program, (c) settlement risk relating to unsettled consolidated obligations and investment debt securities, (d) accounting risk related to hedge accounting and credit loss accounting, and (e) the amount of loans (net of reserves) outstanding under the Bank's Community First Fund;
- Retained Earnings average annual growth rate that mirrors the general growth of the economy in order to preserve both its risk-bearing and income-generating capacity; and
- Risk-adjusted capital target that would allow the Bank to meet regulatory capital requirements without reliance on risk-based retained earnings under stressful conditions.



(Dollars in tables in millions except per share amounts unless otherwise indicated)

Under the Policy, we may, but are not required, to pay a dividend out of our net income (with certain adjustments as described below) or retained earnings, after consideration of the retained earnings target on a quarterly basis and management's assessment of the current adequacy of retained earnings. The maximum dividend allowed would align with requirements set forth in the Policy regarding target levels of retained earnings and risk-adjusted capital, and achievement of risk-based targets. The Board may declare a dividend less than the maximum dividend permitted under the Policy. For these purposes, adjusted net income is net income resulting directly from certain business activities, excluding income from such activities as advance prepayments, transfers of debt to other FHLBs and gains or losses resulting from certain hedge practices.

Our Board of Directors declared quarterly cash dividends at annualized percentage rates per \$100 of par value as presented in the below table (based on the previous quarter's earnings).

Quarter in which dividend was declared (recorded) and paid	B1 Activity Stock		B2 Membership Stock	
	Dividends	Annualized Rate	Dividends	Annualized Rate
2021				
1st quarter	\$ 19	5.00 %	\$ 3	2.00 %
2nd quarter	19	5.00 %	2	2.00 %
3rd quarter	19	5.00 %	3	2.00 %
4th quarter	19	5.00 %	2	2.00 %
Total	\$ 76	5.00 %	\$ 10	2.00 %
2020				
1st quarter	\$ 20	5.00 %	\$ 1	2.25 %
2nd quarter	18	5.00 %	2	2.25 %
3rd quarter	20	5.00 %	2	2.25 %
4th quarter	19	5.00 %	2	2.25 %
Total	\$ 77	5.00 %	\$ 7	2.25 %

On January 28, 2022 our Board of Directors declared a 5.00% cash dividend (annualized) for Class B1 activity stock and a 2.00% cash dividend (annualized) for Class B2 membership stock based on our preliminary financial results for the fourth quarter of 2021. This dividend totaled \$25 million (recorded as \$22 million dividends on capital stock and \$3 million interest expense on mandatorily redeemable capital stock) and was paid on February 15, 2022. As further discussed in **Executive Summary** on page 40, on January 28, 2022, the Bank also provided dividend guidance for the next two quarters.

Joint Capital Enhancement Agreement with other FHLBs

The FHLBs, including us, entered into a Joint Capital Enhancement Agreement (JCE Agreement) intended to enhance the capital position of each FHLB. The intent of the JCE Agreement is to allocate that portion of each FHLB's earnings to a separate retained earnings account at that FHLB. For more information on the JCE Agreement, see **Note 12 - Capital and Mandatorily Redeemable Capital Stock (MRCS)** to the financial statements.

Although restricted retained earnings under the JCE Agreement are included in determining whether we have attained the retained earnings target under the Bank's Retained Earnings and Dividend Policy discussed above, these restricted retained earnings will not be available to pay dividends. We do not believe that the requirement to contribute 20% of our future net income to a restricted retained earnings account under the JCE Agreement will have an impact on our ability to pay dividends except in the most extreme circumstances. There is a provision in the JCE Agreement that if, at any time, our restricted retained earnings were to fall below the required level, we would only be permitted to pay dividends out of (1) current net income not required to be added to our restricted retained earnings and (2) retained earnings that are not restricted.



(Dollars in tables in millions except per share amounts unless otherwise indicated)

FICO Dissolution

The Competitive Equality Banking Act of 1987 was enacted in August 1987, which, among other things, provided for the recapitalization of the Federal Savings and Loan Insurance Corporation through a newly-chartered entity, the Financing Corporation (FICO). The capitalization of FICO was provided by capital distributions from the FHLBs to FICO in exchange for FICO nonvoting capital stock. Capital distributions were made by the FHLBs in 1987, 1988 and 1989 that aggregated to \$680 million. Upon passage of the Financial Institutions Reform, Recovery and Enforcement Act of 1989, the FHLBs' previous investment in capital stock of FICO was determined to be non-redeemable and the FHLBs charged-off their prior capital distributions to FICO directly against retained earnings.

In connection with the dissolution of FICO in July 2020, FICO determined that excess funds aggregating to \$200 million were available for distribution to its stockholders, the FHLBs, and FICO distributed these funds to the FHLBs in June 2020. Specifically, our partial recovery of prior capital distribution was \$19 million, which was determined based on our share of the \$680 million originally contributed to FICO. We treated the receipt of these funds as a return of our investment in FICO capital stock, and therefore as a partial recovery of the prior capital distributions we made to FICO in 1987, 1988, and 1989. These funds have been credited to unrestricted retained earnings in our **Statements of Capital** on page F-7 and in Other Financing Activities in our **Statements of Cash Flows** on page F-9.

Off-balance Sheet Arrangements

We provide members with letters of credit for a fee. If a beneficiary draws under a letter of credit, our member either reimburses us for the amount drawn or the drawn amount is converted into a collateralized advance to the member. If any advances were to be issued under these letters of credit, they would be made under the same standards and terms of collateral as any other advance issued to that member at that point of time.

We have entered into standby bond purchase agreements with the Illinois and Wisconsin state housing authorities. Upon request of the applicable authority, we enter into an agreement with them to purchase and hold the authority's bonds for a fee until the designated remarketing agent can find a suitable investor.

Refer to **Note 16 - Commitments and Contingencies** to the financial statements for further disclosures related to our commercial commitments, such as letters of credit and standby bond purchase agreements.



(Dollars in tables in millions except per share amounts unless otherwise indicated)

Risk Management

Operational Risk

Operational risk is the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events. Fraud, legal, compliance, financial reporting, model and technology risks are components within the definition of operational risk. We have established programs to identify, assess, measure, monitor, manage, and report operational risks such as comprehensive risk assessments, establishing policies and procedures, loss incident reporting and others while obtaining appropriate insurance coverage to mitigate the likelihood of, and potential losses from, such occurrences.

Governance and Control Activities

The Board of Directors has established Bank-wide policies governing operational risk, which include Enterprise Risk Management Policy, Enterprise Operational Risk Management Policy, Cyber Risk Management Policy, and others. Primary oversight responsibility for operational risk is vested with our management level Operational Risk Oversight Committee. Responsibilities of this committee include, but are not limited to, oversight and review of Bank-wide operational risks such as the management of business continuity, technology (including information security) risks, reviews of operational risk decisions that may include risk acceptances, operational issues or updates, operational aspects of new business activities, analysis and mitigation of any operational loss, vendor management, oversight and direction to our compliance activities, and oversight to internal controls and procedures in compliance with the Sarbanes-Oxley Act of 2002. This Committee monitors the performance of these operational activities by reviewing management reports prepared by the responsible business manager on a periodic basis. Also, the Committee monitors the effectiveness of operational controls through the reporting of critical operational losses, events, risk assessments, operational risk metrics, and a quarterly certification of operational and internal controls over financial reporting.

Our executive officers or their delegates provide periodic reports, as appropriate, to the following Board committees: Risk Management Committee, Operations and Technology Committee, and the Audit Committee.

Business Resiliency

In order to ensure our ability to provide liquidity and service to our members and PFIs, we have business resumption plans designed to restore critical business processes and systems in the event of a variety of business interruptions. We maintain key information systems infrastructure with vendors that have reliable and consistent data recovery capabilities as well as more optimal geographic diversity to provide a more resilient technology infrastructure. We are party to a reciprocal arrangement with the FHLB Dallas to allow members to access their deposits as well as have access to overnight advances to the extent they have collateral already in place. Our business resiliency plans are subject to periodic testing.

Credit Risk Management

In light of the economic and financial disruptions related to the COVID-19 pandemic, we are closely monitoring our credit risk exposure. Notwithstanding the easing of restrictive measures, uncertainty remains with respect to the speed and extent to which normal economic and operating conditions can resume, and with the ultimate effect of the COVID-19 pandemic on our workforce, business, financial condition, and results of operations. For a discussion of the credit risks facing the Bank as a result of the COVID-19 pandemic, including as a result of increased forbearances granted by Bank members or PFIs or a decline in the fair value of Bank investments, see **Risk Factors** on page 22 of this Form 10-K.

We define credit risk as the risk to our earnings or capital due to an obligor's failure to meet the terms of any contract with us, or to otherwise perform as agreed. We are exposed to credit risk principally through:

- Member credit products, such as advances, letters of credit, and other extensions of credit to borrowers;
- MPF Loans and related exposures;
- investment debt securities;
- securities purchased under agreements to resell;
- unsecured short-term investments;
- Community First Fund loans; and
- derivatives.



(Dollars in tables in millions except per share amounts unless otherwise indicated)

Managing Our Credit Risk Exposure Related to Member Credit Products

Our member credit products credit risk exposure includes our secured credit extensions, such as advances, letters of credit, and related extensions of credit to members. See **Note 6 - Advances** and **Note 16 - Commitments and Contingencies** to the financial statements for further details on member credit products. We lend to our members in accordance with federal statutes and FHFA regulations. We manage our credit exposure to our member credit products using a risk-based integrated approach as discussed below. We utilize conservative collateral/lending policies to limit risk of loss while balancing members' needs for a reliable source of funding.

Establishing Credit Limits - Under our credit policy, a member's initial credit limit is set up to 35% of their total assets, subject to modifications up or down based primarily on the following factors:

- The collateral value of eligible collateral a member has pledged. Collateral value represents the borrowing capacity assigned to the types of collateral we accept for member credit products. Collateral value does not imply fair value.
- A member's risk rating, which is determined by assessing their creditworthiness and financial condition utilizing financial information available to us, including the quarterly financial statement reports members file with their regulators. Additionally, we conduct an ongoing review of each borrower's financial condition.
- For increases to the initial credit limit, approval by the Credit and Collateral Committee, our Chief Risk Officer, or our CEO is required.

Member Credit Outstanding - We track total credit risk with our members. The total credit risk concentrated with members (including any successor) with 10% or more of our total member credit outstanding is as follows:

As of December 31, 2021	Total Credit Outstanding	% of Total
JPMorgan Chase Bank NA	^a \$ 11,000	18.6%

^a Effective February 19, 2021, we terminated One Mortgage Partners Corp.'s ("OMP") membership in connection with the FHFA rule that made captive insurance companies ineligible for FHLB membership. In December 2021, OMP merged with and into its parent company, JPMorgan Chase Bank NA.

Member Credit Risk Ratings - Our credit risk rating system focuses primarily on our members' overall financial health and takes into account the member's asset quality, earnings, and capital position. We utilize our credit risk rating system to assign each member a credit risk rating from one (lowest credit risk) to five (highest credit risk). Our credit risk rating represents our assessment of the risk of member insolvency rather than the risk of credit loss on the member's credit outstanding with us. We utilize the credit risk rating of a member to manage our credit risk through collateral controls, and we have never suffered a credit loss on a member credit product. Credit risk mitigation actions may be applied to members perceived to pose increased risk, and are commonly applied to members with credit risk ratings of four and five. Specifically, these members may be:

- required to maintain higher amounts of collateral;
- required to deliver loan collateral to us or a third party custodian on our behalf;
- restricted from obtaining certain member credit products; and
- faced with more stringent collateral reporting requirements.

The following table presents the number of members and related credit outstanding to them by credit risk rating. Credit outstanding consists primarily of outstanding advances and letters of credit. MPF credit enhancement obligations, member derivative exposures, and other obligations make up the rest. Of the total credit outstanding, \$47.7 billion were advances (par value) and \$11.3 billion were letters of credit at December 31, 2021, compared to \$45.8 billion and \$16.4 billion at December 31, 2020.



(Dollars in tables in millions except per share amounts unless otherwise indicated)

Rating	December 31, 2021			December 31, 2020		
	Borrowing Members	Credit Outstanding	Collateral Loan Value	Borrowing Members	Credit Outstanding	Collateral Loan Value
1-3	545	\$ 58,542	\$ 131,923	556	\$ 62,021	\$ 149,125
4	6	464	611	9	573	790
5	7	30	44	9	28	61
Total	558	\$ 59,036	\$ 132,578	574	\$ 62,622	\$ 149,976

Members assigned a 4 rating in the above table were required to submit specific collateral listings and the members assigned a 5 rating were required to deliver collateral to us or to a third party custodian on our behalf.

In response to the COVID-19 pandemic, we began accepting Paycheck Protection Program (PPP) loans as eligible collateral. In addition, as many of our members assist borrowers affected by the COVID-19 pandemic, we accept as eligible collateral loans temporarily granted forbearance prior to December 31, 2021 due to the pandemic as long as the loans continue to meet all other eligibility requirements as defined in our collateral guidelines. To the extent that these loans become delinquent or do not meet the Bank's eligibility guidelines in the future, the value of collateral pledged to secure member credit may be negatively impacted. For a discussion of our credit risks, and risks relating to the COVID-19 pandemic, see **Risk Factors** on page 22.

Nature and Amount of Collateral Pledged - Collateral arrangements may vary by type of member (e.g., depository versus non-depository institutions), lien structure, member credit quality, collateral availability, collateral type, results of periodic on-site reviews of collateral, and overall member credit exposure. The FHLB Act requires us to obtain sufficient collateral to fully secure member credit products. Eligible collateral includes whole first mortgages on improved residential property, or non-agency securities representing a whole interest in such mortgages; securities issued, insured, or guaranteed by the U.S. government or any of its agencies (includes MBS issued or guaranteed by Fannie Mae, Freddie Mac, or Ginnie Mae and FHLB consolidated obligations); cash or deposits; and other real estate related collateral (includes home equity loans and lines of credit, farm land, commercial real estate, and construction, land development and other loans) that has a readily ascertainable value, can be reliably discounted to account for liquidation risk and can be liquidated in due course and that we can perfect a security interest in such collateral. We also accept pledges of secured business or agribusiness loans from community financial institutions (CFIs), which are permitted under the FHLB Act.

In certain circumstances, such as when a member's membership is terminated due to a merger and the acquiring entity is a member of another FHLB; the other FHLB may agree to manage the former member's collateral covering advances and any other amounts still outstanding to us and will subordinate to us either certain collateral it receives from the member or certain categories of collateral. Likewise, if one of our members were to acquire the member of another FHLB, we may agree to manage the collateral for the other FHLB and subordinate our security interest in a certain category of collateral.

Our Advances, Collateral Pledge and Security Agreement requires that a member provide collateral value equal to its credit outstanding (unless we specifically require more for a particular member). The value assigned to securities and loan collateral is calculated as shown below. It should be noted that the applicable percentage of margin utilized in the calculation for securities or loans vary based on the type of collateral being pledged, as well as factors (that vary whether the collateral is a security or loan) including model risk, broker fees, market volatility and liquidity, the type of collateral reporting, the member's risk rating, and whether the member is a depository or non-depository.

- For securities, we multiply the applicable margin by the market value of each security; and
- For loans, we multiply the applicable margin by the unpaid principal balance of pledged loans, along with any applicable percentage applied to adjust for exceptions found during a member's collateral review.
 - In general members pledging loan collateral via blanket reporting will receive the margin published, as a percent of unpaid principal balance.
 - Members with listed and/or delivered loan collateral will generally receive the margin published, which will be applied as a percent to the lower of par or market value of the unpaid principal balance of the reported loan collateral.

Controls over Pledged Collateral - We require delivery of all securities collateral and may also require delivery of loan collateral under certain conditions (for example, when a member's credit condition deteriorates).

The FHLB Act requires that each advance to a member be fully secured. We are required to obtain and maintain a security



(Dollars in tables in millions except per share amounts unless otherwise indicated)

interest in collateral securing advances. The FHLB Act provides that any security interest granted to us by our members, or an affiliate of such member, is entitled to priority over the claims and rights of any party, including any receiver, conservator, trustee, or similar party having rights of a lien creditor other than claims and rights that would be entitled to priority under otherwise applicable law and are held by actual bona fide purchasers for value or by actual secured parties that are secured by actual perfected security interests. We perfect the security interests granted to us by members and affiliates by taking possession of securities collateral and by filing UCC-1 financing statements on all other collateral.

For depository institutions, we generally require members to pledge collateral under a blanket lien under which our security interest in collateral is automatically released when the member has sold or otherwise transferred its ownership interest in the collateral (unless otherwise notified by us) and such collateral is not required to secure a member's outstanding credit obligations and we have not required the member to list or deliver such collateral. Under the Advances, Collateral Pledge and Security Agreement with our members, a member must maintain collateral with a collateral value to fully cover its credit outstanding. If the collateral does not have collateral value sufficient to cover the credit outstanding, we require a member to pledge other assets as collateral to cover the shortage, this includes the pledging of types of collateral that are outside of our eligibility criteria. As a result, we may require listing or delivery of the additional collateral from the member at any time while there is credit outstanding. Additionally, we have a lien on their capital stock in us.

The method by which a member reports collateral is dependent upon the collateral status to which it is assigned, as well as the type of collateral being pledged. In order for a member to have borrowing capacity with us, the member must report its eligible collateral using one of the following methods. Under blanket reporting, a member that has granted us a blanket lien on certain categories of collateral may report the collateral types on a qualified collateral report. For members that list collateral, either by choice or as directed by us, the member must submit a listing of its collateral which includes loan-level detail of the collateral. Securities pledged to us must be delivered to us or an approved third party custodian pursuant to a collateral control agreement. Loan collateral pledged to us may be required to be delivered to an approved third party custodian pursuant to a collateral control agreement. Regardless of the manner in which the collateral is pledged, all members must report their collateral to us at least quarterly.

We also conduct periodic on-site loan collateral reviews to confirm the collateral meets our eligibility requirements. On-site collateral verifications are performed on a schedule that varies based upon, including, but not limited to, our assessment of the credit risk of the member, the size of the member's credit exposure, the types of collateral pledged, and the amount of collateral coverage.

We have not recorded any allowance for credit losses for our on-balance sheet member credit products nor any liabilities for our off-balance sheet member credit products in the periods presented based on the following factors:

- Our credit outstanding is sufficiently well collateralized as a result of the collateral and credit risk mitigation efforts described above;
- Our credit analyses of our members;
- The repayment history on member credit products; and
- No member credit products that were past due, on nonaccrual status, involved in a troubled debt restructuring, or otherwise considered impaired.

MPF Loans and Related Exposures

For a description of the MPF Program see **Mortgage Partnership Finance Program** on page 8.

Credit Risk Exposure - Our credit risk exposure on conventional MPF Loans held in portfolio is the potential for financial loss due to borrower default and depreciation in the value of the real estate collateral securing the MPF Loan, offset by our ability to recover losses from PMI, Recoverable CE Fees, and the CE Amount which may include SMI. The PFI is required to pledge collateral to secure any portion of its CE Amount that is a direct obligation of the PFI. The unpaid principal balances of our conventional MPF Loans held in portfolio exposed to credit losses was \$8.8 billion at December 31, 2021, and \$9.0 billion at December 31, 2020. Our actual credit exposure is less than these amounts because the borrower's equity, which represents the fair value of the underlying property in excess of the outstanding MPF Loan held in portfolio balance, has not been considered.

Under our MPF Program for conventional loans held in our portfolio, the loan payment forbearance offered to borrowers impacted by the COVID-19 pandemic allows a borrower to defer loan payments for up to a total cumulative forbearance period of 24 months.

For Government Loans held in our portfolio, the forbearance plan requirements of the insuring or guarantying agency must be followed. For MPF Xtra loans that are serviced by PFIs or a servicing aggregator approved by the MPF Program, Fannie Mae's



(Dollars in tables in millions except per share amounts unless otherwise indicated)

forbearance plan requirements must be followed, which allows a borrower to defer loan payments for up to a total cumulative forbearance period of 18 months.

Borrowers who are in existing forbearance plans are evaluated for reinstatement, repayment, deferment, loan modification, or liquidation options, as appropriate for their situation. In addition, Fannie Mae offers Flex Modifications with some COVID-19 flexibilities, for MPF Xtra borrowers exiting forbearance.

In addition, while the federal foreclosure moratorium ended December 31, 2021, in accordance with the Consumer Financial Protection Bureau (CFPB) "Protections for Borrowers Affected by the COVID-19 Emergency Under the Real Estate Settlement Procedures Act (RESPA), Regulation X" some states may still have moratoriums in place.

The COVID-19 pandemic and related economic disruptions may impact borrowers' ability to repay their mortgage loans, which may lead to elevated rates of delinquencies or defaults and adversely impact the credit performance of MPF Loans held in portfolio. The extent to which the COVID-19 pandemic will affect or will continue to affect our business, financial condition, and results of operations will depend on future developments, which are highly uncertain and difficult to predict. For a discussion of our credit risks and risks relating to the COVID-19 pandemic, see **Risk Factors** on page 22.

Our MPF Loans held in portfolio include conventional mortgage loans that may be viewed as having greater credit risk because the borrowers have weaker credit histories. The current MPF Program eligibility criteria for conforming conventional MPF Loans excludes loans to borrowers with a FICO score less than 620. Historically, we accepted MPF Loans from borrowers with FICO scores below 620 provided they met the underwriting standards set forth in the MPF Guides, which require compliance with applicable laws and regulations, including the Interagency Guidance on Nontraditional Mortgage Product Risks (issued October 4, 2006) and the Statement on Subprime Mortgage Lending (issued on July 10, 2007) issued by the Office of the Comptroller of the Currency, Office of the Thrift Supervision, Board of Governors of the Federal Reserve System, Federal Deposit Insurance Corporation, and the National Credit Union Administration. MPF Loans to borrowers with no FICO scores are also eligible for delivery under the MPF Program provided that acceptable alternate documentation of credit history is provided. We do not classify these MPF Loans internally as "subprime" because they are not higher-priced mortgage loans. Mortgages that meet the MPF Program's definition of higher-priced mortgage loans are not eligible for delivery under the MPF Program. MPF Loans with borrowers having no FICO scores or with FICO scores less than 660 at origination represent a relatively small portion of our total conventional MPF Loan portfolio.

Under the MPF Government MBS product, we must advance the scheduled principal and interest payments to the securities holders of Ginnie Mae MBS that we issued if the servicing PFI defaults on its payment obligations to advance the scheduled remittances. Once MPF Government MBS loans are ninety days delinquent, the servicing PFI has the option to repurchase the mortgage loan to mitigate the credit loss.

Setting Credit Enhancement Levels - For conventional MPF Loans held in portfolio, credit losses in an MC are first absorbed by the Bank's First Loss Account (FLA) but, if applicable to the particular MPF product structure, we will withhold a PFI's scheduled performance credit enhancement fee in order to reimburse ourselves for any losses allocated to the FLA. We refer to these reimbursable credit enhancement fees as Recoverable CE Fees. If the FLA is exhausted, the credit losses are then absorbed by the PFI's CE Amount, which is calculated by utilizing third party credit models. For further details on the FLA and PFI's CE Amount, refer to **Loss Structure for Credit Risk Sharing Products** on page 9 and **Conventional MPF Loans Held in Portfolio** on page F-32 to the financial statements.

The PFI's credit enhancement obligation, inclusive of the CE Amount and Recoverable CE Fees, as applicable, is determined by the Bank, based on documented analysis, that the Bank has a high degree of confidence that it will not bear material losses beyond the losses absorbed by the Bank's FLA, even under reasonably likely adverse changes to expected economic conditions. Loans are assessed by third party credit models at acquisition and a credit enhancement is calculated based on credit attributes of the loans in each MC. Credit losses on a loan may only be absorbed by the PFI's credit enhancement obligation, inclusive of the CE Amount and Recoverable CE Fees, as applicable, in the MC related to the loan.

The CE Amounts and the FLA for certain conventional MPF Products held in our portfolio may be periodically reset lower for each MC after a required period of seasoning because the amount of credit enhancement necessary to maintain the risk of credit losses within our risk tolerance is usually reduced over time.

For the MPF Plus product, the PFI is required to provide an SMI policy covering the MPF Loans in the MC and having a deductible initially equal to the FLA. As of December 31, 2021, and 2020, the outstanding balances of MPF Loans under the MPF Plus product with SMI coverage were \$85 million and \$114 million and the amounts of SMI coverage provided against losses were \$4 million and \$4 million. The reduction in coverage was due to the resetting of SMI policies as provided in the MPF Plus product structure. Credit losses associated with MCs for which the SMI coverage has been discontinued are incorporated into the allowance for credit losses calculation. Such credit losses were immaterial.



(Dollars in tables in millions except per share amounts unless otherwise indicated)

The following table shows the status of the credit enhancement structure on conventional MPF Loans held in portfolio. Unpaid principal balances in this table include REO, and are impacted by the credit enhancement structure of a MC. As defined, the CE Amount includes SMI on the MPF Plus product. Government Loans are excluded from the table as they are not directly credit enhanced by the PFI.

As of December 31, 2021				
Conventional MPF Product Type	Unpaid Principal Balance	90+ Days Delinquent	FLA ^a	PFI's CE Amount ^b
100	\$ 72	2.55%	7.25%	3.05%
125	1,929	2.24%	3.05%	3.58%
Plus	461	3.88%	16.17%	0.83%
35	2,232	0.10%	0.65%	2.65%
Original	4,157	0.25%	0.29%	4.19%

^a For each product above, except MPF Original, a portion of losses experienced at the FLA level may be recovered through the withholding of performance-based CE Fees from PFIs.

^b Credit losses on a loan may only be absorbed by the CE Amount in the MC related to the loan. For further detail refer to **Conventional MPF Loans Held in Portfolio** on page F-32 to the financial statements.

Concentration Risks - In conjunction with assessing credit risks on the MPF Loan portfolio, we also assess concentration risks that could negatively impact the portfolio.

Geographic Concentration - While we have MPF Loans on properties throughout the United States, our largest concentrations of 10% or more of conventional MPF Loans held in portfolio were secured by properties located in the states shown in the following table. Percentages shown are based on unpaid principal balance. An overall decline in the economy, residential real estate market, or the occurrence of a natural disaster could adversely affect the value of some or all of the mortgaged properties in these states and increase the risk of delinquency, foreclosure, bankruptcy or loss on MPF Loans, which could negatively affect our business, results of operations, and financial condition.

As of	December 31, 2021
WI	42 %
IL	32 %
All other states	26 %
Total	100 %

Seller Concentration - During 2021, the top five PFIs, in the aggregate, accounted for 23% of our MPF Loans purchased and held in portfolio on our balance sheet. To the extent we lose our business with these PFIs and cannot attract comparable replacements, our business may be adversely affected.

For further discussion of how concentration risks may affect us, see **Risk Factors** starting on page 22.

Mortgage Repurchase Risk - We are exposed to mortgage repurchase risk in connection with our sale of MPF Loans to Fannie Mae under the MPF Xtra product, to third party investors under the MPF Direct Product, and to Ginnie Mae for MPF Loans securitized in Ginnie Mae MBS if a loan eligibility requirement or other representation or warranty is breached. We may require the PFI from which we purchased the ineligible MPF Loan to repurchase that loan from us or indemnify us for related losses or request indemnification from the PFI's MPF Bank. Of these three products, our MPF Xtra product is our most popular, and during the years ended December 31, 2021 and 2020, we purchased and concurrently delivered \$6.7 billion and \$13.8 billion in unpaid principal balance of these loans to Fannie Mae. At December 31, 2021 and 2020, there were \$25.1 billion and \$24.2 billion of off-balance sheet MPF Xtra loans outstanding.

Our mortgage repurchase liability is an estimate of our losses associated with all mortgage loans previously sold in connection with the MPF Xtra, MPF Direct, and MPF Government MBS products for which a breach of representation or warranty has occurred. We consider factors based predominantly on our historical repurchase experience and only include mortgage loans for which we deem it probable that we will be required to either repurchase the mortgage loan or indemnify the applicable third party for losses. This assessment is primarily made during the quality control review process, which includes internal and investor-led reviews. Our estimate incorporates our experiences with third party repurchase demands, PFIs' historical ability to cure repurchase demands, an assumed loss severity given default, and the current creditworthiness of the PFI.



(Dollars in tables in millions except per share amounts unless otherwise indicated)

The methodology to estimate the associated mortgage repurchase liability for MPF Government MBS loans also considers potential repurchases based on delinquency activity or lack of final loan certifications within issued pools. We are expected to maintain delinquency rates on outstanding issuances below key thresholds and fulfill operational requirements published by Ginnie Mae.

We accrue a mortgage repurchase liability with an offsetting charge to noninterest expense when it is probable and reasonably estimable that we will be obligated to repurchase a loan or indemnify an investor.

Based on the above factors, the mortgage repurchase liability recognized as of December 31, 2021 and December 31, 2020 was immaterial.

Additionally, PFIs are required to repurchase ineligible MPF Loans held in our portfolio unless we either require the PFI to indemnify us or decide to continue to hold such loans in our portfolio. The PFI repurchase requirement is a factor in determining our allowance for credit losses. If a PFI is unable to repurchase ineligible MPF Loans or indemnify us, we would incur a loss to the extent a credit loss is not recovered from collateral provided by the PFI or, alternatively, from the FDIC. In this regard, we have not recorded an allowance for credit losses related to MPF Loans held in our portfolio, as we do not expect to incur any losses after factoring in our recovery claims from PFIs.

We record allowances for credit losses for MPF Loans held in portfolio based on available information of past events and the current economic conditions existing as of the date of our **Statements of Condition** and reasonable and supportable forecasts that affect the collectability of the financial instrument's reported amount. Such information includes, but is not limited to, delinquency rates, loss severities, and prepayment speeds consistent with the percentages of delinquent, nonaccrual, and impaired MPF Loans to total conventional MPF Loans. Refer to **Note 2 - Summary of Significant Accounting Policies** to the financial statements for details on our nonaccrual and charge-off policies. Additionally, refer to **Note 8 - Allowance for Credit Losses** to the financial statements for further details on our allowance for credit losses.

The following table presents various credit quality indicators of our MPF Loans Held in Portfolio.

As of	December 31, 2021	December 31, 2020
Unpaid Principal Balance		
Average MPF Loans held in portfolio during the period	\$ 9,666	\$ 10,191
MPF Loans held for portfolio	9,684	9,856
Nonaccrual MPF Loans	46	118
Allowance for MPF credit losses	5	3
MPF credit losses charged-off	2	4
Ratio of MPF credit losses charged-off to average MPF Loans held in portfolio during the period	0.02 %	0.04 %
Ratio of allowance for MPF credit losses to MPF Loans held for portfolio	0.05 %	0.03 %
Ratio of nonaccrual MPF Loans to MPF Loans held for portfolio	0.48 %	1.20 %
Ratio of allowance for MPF credit losses to nonaccrual MPF Loans	10.87 %	2.54 %

Nonaccrual MPF Loans decreased as our delinquent loans and loans in forbearance cured or paid off. In addition, our allowance for MPF credit losses increased in anticipation of potential elevated charge-off activity as the 2020 CARES Act forbearance provisions expire.



(Dollars in tables in millions except per share amounts unless otherwise indicated)

Key Credit Quality Indicators

The following table presents our key credit quality indicators (at origination) of FICO scores and Loan-to-Value (LTV) ratios for our conventional MPF Loans. Percentages shown are based on unpaid principal balance.

As of December 31, 2021	% of Total	Current	30 Days Delinquent	60 Days Delinquent	90 Days + Delinquent
FICO Score < 620	0.4 %	83.9 %	3.2 %	3.2 %	9.7 %
FICO Score 620-659	5.0 %	94.6 %	2.0 %	0.7 %	2.7 %
FICO Score >=660	94.3 %	98.8 %	0.4 %	0.1 %	0.7 %
No FICO Score	0.3 %	100.0 %	— %	— %	— %
Total	100.0 %	98.5 %	0.5 %	0.2 %	0.8 %
Weighted average FICO score	746				
LTV Ratio <=60%	18.8 %				
LTV Ratio > 60% to 70%	17.5 %				
LTV Ratio > 70% to 80%	48.4 %				
LTV Ratio > 80% to 90%	8.5 %				
LTV Ratio > 90%	6.8 %				
Total	100.0 %				
Weighted average LTV %	72.0 %				



(Dollars in tables in millions except per share amounts unless otherwise indicated)

Investment Debt Securities

We hold a variety of investment debt securities, mostly government backed or insured securities, and we believe these investments are currently low risk. We also held PLMBS, which we sold during October 2020, as discussed in **Note 2 – Summary of Significant Accounting Policies**.

The carrying amounts of our investments are presented in the following table by the long term NRSRO credit rating of the counterparty. The rating used was the lowest rating among the three largest NRSROs.

	AAA	AA	A	BBB	Below Investment Grade	Unrated	Carrying Amount
December 31, 2021							
Investment debt securities-							
U.S. Government & other governmental related	\$ —	\$ 7,135	\$ —	\$ —	\$ —	\$ —	\$ 7,135
State or local housing agency	—	9	—	—	—	—	9
FFELP ABS	—	2,772	—	—	—	—	2,772
MBS							
GSE	154	15,123	—	—	—	—	15,277
Government guaranteed	—	258	—	—	—	—	258
Other	—	—	10	—	—	—	10
Total investment debt securities	154	25,297	10	—	—	—	25,461
Interest bearing deposits	—	—	855	—	—	—	855
Federal funds sold	—	300	3,227	—	—	—	3,527
Securities purchased under agreements to resell	—	3,500	5,240	—	—	—	8,740
Total carrying amount of investments	\$ 154	\$29,097	\$ 9,332	\$ —	\$ —	\$ —	\$ 38,583
December 31, 2020							
Investment debt securities-							
U.S. Government & other governmental related	\$ —	\$ 7,328	\$ —	\$ —	\$ —	\$ —	\$ 7,328
State or local housing agency	—	15	—	—	—	—	15
FFELP ABS	21	3,013	—	—	—	—	3,034
MBS							
GSE	162	13,632	—	—	—	—	13,794
Government guaranteed	—	364	—	—	—	—	364
Other	—	13	—	—	1	—	14
Total investment debt securities	183	24,365	—	—	1	—	24,549
Interest bearing deposits	—	—	855	—	—	—	855
Federal funds sold	—	500	3,625	—	—	—	4,125
Securities purchased under agreements to resell	—	5,995	3,375	—	—	750	10,120
Total carrying amount of investments	\$ 183	\$30,860	\$ 7,855	\$ —	\$ 1	\$ 750	\$ 39,649



(Dollars in tables in millions except per share amounts unless otherwise indicated)

Aging and Carrying Amount

The following table presents the aging of our AFS and HTM investment securities for the current year in greater detail by investment type, as well as the carrying amounts for the previous year. It also discloses the yields by maturity categories for the current year.

As of December 31,	2021				Net Carrying Amount	2020
	Due in one year or less	Due one through five years	Due five through ten years	Due after ten years		Net Carrying Amount
AFS debt securities						
U.S. Government & other governmental related	\$ 3,264	\$ 4	\$ 453	\$ 960	\$ 4,681	\$ 1,618
State or local housing agency	—	3	5	1	9	15
FFELP ABS ^a	—	—	—	2,772	2,772	3,034
MBS ^a						
GSE	—	61	11,298	3,698	15,057	13,501
Government guaranteed	—	—	—	187	187	269
AFS debt securities	\$ 3,264	\$ 68	\$ 11,756	\$ 7,618	\$ 22,706	\$ 18,437
Yield on AFS debt securities	0.05 %	3.64 %	3.02 %	2.64 %	2.47 %	3.01 %
HTM debt securities						
U.S. Government & other governmental related	\$ 1,222	\$ 25	\$ 259	\$ —	\$ 1,506	\$ 1,098
MBS ^a						
GSE	—	8	(1)	207	214	285
Government guaranteed	—	1	1	69	71	94
Other	—	—	—	10	10	14
HTM debt securities	\$ 1,222	\$ 34	\$ 259	\$ 286	\$ 1,801	\$ 1,491
Yield on HTM debt securities	0.64 %	1.91 %	3.63 %	4.02 %	1.63 %	2.34 %

^a ABS and MBS are presented by contractual maturity however their expected maturities will likely differ from contractual maturities as borrowers may have the right to call or prepay obligations with or without call or prepayment fees.

Securities Purchased Under Agreements to Resell

We invest in securities purchased under agreements to resell in order to ensure the availability of funds to meet members' liquidity and credit needs. Securities purchased under agreements to resell are secured by collateral of marketable securities held by a third party custodian. If the fair value of the accepted collateral decreases below the fair value amount required as collateral, our counterparty is required to provide an equivalent amount of additional securities as collateral to make up the shortfall. If the credit markets experience disruptions, it may increase the likelihood that one of our counterparties could experience liquidity or financial constraints that may cause them to become insolvent or otherwise default on their obligations to us. If the collateral's fair value amount has decreased below the resale agreement's carrying amount, we may suffer a credit loss.

The credit ratings of securities purchased under agreement to resell are disclosed along with investment debt securities and unsecured short-term investments, in the **Investment Debt Securities** table on page 77.



(Dollars in tables in millions except per share amounts unless otherwise indicated)

Unsecured Short Term Investments

We invest in unsecured short-term investments in order to ensure the availability of funds to meet members' credit and liquidity needs. We have credit risk exposure from our unsecured short-term investment portfolio, which may consist of commercial paper, certificates of deposit, and federal funds sold. We have established the following policies and procedures to limit and monitor our unsecured credit risk exposure.

- Eligible counterparties for short-term investments are:
 - other FHLBs;
 - other U.S. GSEs; and
 - FDIC-insured financial institutions, including U.S. subsidiaries of foreign commercial banks, or U.S. branches of foreign commercial banks whose most recently published financial statements exhibit at least \$250 million of Tier 1 (or total) capital. U.S. branches and agency offices of foreign non-member counterparties that have their ultimate parent domiciled in a country whose sovereign rating is below "Aa3" from Moody's or AA- from Standard & Poor's, are reported to the Bank's Credit and Collateral Committee.
- Our unsecured credit exposures to U.S. branches or 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 their contractual repayment obligations. Our unsecured credit exposures to domestic counterparties and U.S. subsidiaries of foreign commercial banks include the risk that these counterparties have extended credit to foreign counterparties.
- Unsecured credit investment maturities are subject to maximum amounts and tenors as established by the Bank.
- We actively monitor our credit risk exposure and the credit quality of each counterparty, including an assessment of each counterparty's financial performance, capital adequacy, sovereign support (if applicable) and the current market perceptions of the counterparty. General macro-economic, political and market conditions may also be considered when deciding on unsecured exposure. As a result of this monitoring activity, we may limit or terminate existing unsecured credit exposure limits.

The following table presents the credit ratings of our unsecured investment counterparties, organized by the domicile of the counterparty or, where the counterparty is a U.S. branch or agency office of a foreign commercial bank, by the domicile of the counterparty's parent. This table does not reflect the foreign sovereign government's credit rating. The rating used was the lowest rating among the three largest NRSROs. The unsecured investment credit exposure presented in the table may not reflect the average or maximum exposure during the period as the table reflects only the balances at period end.

As of December 31, 2021	AA	A rated	Total
Domestic U.S.			
Interest bearing deposits	\$ —	\$ 855	\$ 855
Foreign commercial banks - federal funds sold:			
Australia	—	1,000	1,000
Canada	—	1,875	1,875
Finland	300	—	300
Netherlands	—	352	352
Total unsecured credit exposure	\$ 300	\$ 4,082	\$ 4,382

All \$4.382 billion of the unsecured credit exposure in the above table represent overnight investments and \$425 million in the above table were with members and their affiliates. Any amounts related to members over a 10% concentration are included in the amounts in the **Member Credit Outstanding** table on page 70.



(Dollars in tables in millions except per share amounts unless otherwise indicated)

Managing Our Credit Risk Exposure Related to Derivative Agreements

See **Note 9 - Derivatives and Hedging Activities** to the financial statements for a discussion of how we manage our credit risk exposure related to derivative agreements. We have credit exposure on net asset positions where we have not received adequate collateral from our counterparties. We also have credit exposure on net liability positions where we have pledged collateral in excess of our liability to a counterparty.

The following table presents our derivative positions where we have such credit exposures. The rating used was the lowest rating among the three largest NRSROs. Non-cash collateral pledged consists of initial margin we posted through our FCMs, on behalf of the DCOs for cleared derivatives and is included in our derivative positions with credit exposure. We had no material concentration of credit risk with any one bilateral derivative counterparty.

	Net Derivatives Fair Value Before Collateral	Cash Collateral Pledged	Noncash Collateral Pledged	Net Credit Exposure to Counterparties ^a
As of December 31, 2021				
Nonmember counterparties -				
Undercollateralized asset positions -				
Bilateral derivatives -				
A	\$ 1	\$ (1)	\$ —	\$ —
Overcollateralized liability positions -				
Bilateral derivatives -				
A	(131)	136	—	5
BBB	(114)	118	—	4
Cleared derivatives	(23)	—	645	622
Nonmember counterparties	(267)	253	645	631
CO bond firm commitments	—	3	—	3
Member counterparties	2	—	—	2
Total	\$ (265)	\$ 256	\$ 645	\$ 636

^a Less than \$1 million is shown as zero.



(Dollars in tables in millions except per share amounts unless otherwise indicated)

Item 7A. Quantitative and Qualitative Disclosures About Market Risk.**Market Risk Profile**

Our financial assets and financial liabilities are subject to market risk. Specifically, the fair value of our financial assets may decline while the fair value of our financial liabilities may increase due to changes in market risk factors. Our exposure to interest rate risk, however, represents our most critical market risk factor since our earnings primarily are driven by net interest income.

Interest Rate Risk Management

Our interest rate risk management objective is to manage our exposure to interest rate risk within appropriate limits rather than eliminate our entire exposure to interest rate risk. In this regard, we have established policies that include guidelines on the amount of exposure to interest rate changes we are willing to accept. Our Asset/Liability Management Committee provides oversight of these risk management practices and policies. This includes routine reporting to senior Bank management and the Board of Directors, as well as maintaining the Income and Market Value Risk Policy, which defines our interest rate risk limits. Our strategy to manage interest rate risk is outlined below.

Monitoring and Analyzing Interest Rate Risk

- We monitor the risk to our net interest income, and average maturity of our interest bearing assets and liabilities.
- We measure and manage market exposure through four measurements: duration, convexity, curve, and volatility.
 - Duration measures our exposure to parallel interest rate shifts where changes in interest rates occur at similar rates across the yield curve. Duration of equity is a measure that expresses the interest rate sensitivity of the present value of the Bank's cash flow in terms of duration years of portfolio equity. We report the results of our duration of equity calculations to the FHFA each quarter. We measure duration of equity in a base case using the actual yield curve as of a specified date and then shock it with an instantaneous shift of the entire curve. Effective duration measures price sensitivity taking into account that the expected cash flows will change as interest rate change due to any prepayment options embedded within a financial instrument.
 - Convexity measures how fast duration changes as a function of interest rate changes. Convexity is largely driven by mortgage cash flows that vary significantly as borrowers respond to rate changes by either prepaying their mortgages or slowing such prepayments.
 - Curve quantifies our exposure to non-parallel shifts in the yield curve.
 - Volatility describes the degree to which the value of options, explicit or embedded, fluctuates. MPF Loans held in portfolio and MBS include options held by the mortgage borrowers to prepay their loans. As a result, we have effectively sold options by owning MPF Loans held in portfolio and MBS. Some consolidated obligations issued by us have effective purchased options that allow us to call the bonds prior to the contractual maturity date.
- We analyze the risk of our mortgage assets on a regular basis and consider the interest rate environment under various interest rate scenarios. We also perform analyses of the duration and convexity of the portfolio.

Mortgage-Related Assets*MPF Loans Held in Portfolio and Residential MBS*

The predominant source of interest rate risk in our market risk profile is attributable to mortgage-related assets. Our mortgage-related assets include, but are not limited to, MPF Loans held in portfolio and MBS. Interest rate risk results from prepayment options embedded in mortgage-related assets. Specifically, changes in interest rates may result in extensions or contractions in the expected maturities of our mortgage-related assets. Interest rate swaps, swaptions, and/or futures contracts may be used to hedge the duration, convexity, and prepayment risk on MPF Loans held in portfolio. We issue both callable and noncallable debt to achieve cash flow patterns and liability durations similar to those expected on MPF Loans held in portfolio.

Economic Hedges

An economic hedge is defined as a derivative that does not qualify (or was not designated) for hedge accounting, but is an acceptable hedging strategy for risk management purposes. These economic hedging strategies also comply with FHFA regulations that prohibit speculative hedge transactions. An economic hedge may introduce the potential for earnings volatility



(Dollars in tables in millions except per share amounts unless otherwise indicated)

caused by the changes in fair value on the derivatives that are recorded in income but not offset by recognizing corresponding changes in the fair value of the economically hedged assets, liabilities, or firm commitments.

We utilize economic hedges to manage our duration, convexity, curve, and volatility. We hedge the duration and convexity of MPF Loans held in portfolio by using economic hedges or through the use of callable and noncallable debt. Convexity risks arise principally from the prepayment option embedded in our MPF Loans held in portfolio and MBS. As interest rates become more volatile, changes in our duration and convexity profile become more volatile. As a result, our level of economic hedging activity, as discussed below, may increase resulting in an increase in hedging costs.

Our primary risk mitigation tools may include funding instruments, swaps, swaptions, futures, options on futures and mortgages, caps, floors, callable debt and/or selling forward Fannie or Ginnie Mae TBA contracts. We generally do not manage exposure to mortgage option-adjusted spreads. Based on our risk profile, funding is primarily used to address duration, convexity, curve, volatility and cash flow mismatch risks at either a portfolio or balance sheet level under different rate scenarios.

Economic hedges may be executed to reduce exposure or the risk associated with a single transaction or group of transactions. Our economic hedges are evaluated daily and adjusted as deemed necessary.

MPF Government MBS Product

Each delivery commitment is hedged during the delivery commitment period and during the period while the loan held for sale is on the Bank's balance sheet by selling forward Ginnie Mae TBA contracts. Both loans held for sale and TBA contracts are carried at fair value on the Bank's balance sheet. These TBA contracts may be executed to reduce the market risk exposure associated with buying or holding an MPF Government MBS loan until it is securitized. The hedges are evaluated daily and adjusted as deemed necessary.

MPF Xtra

We enter into offsetting delivery commitments under the MPF Xtra, where we agree to buy mortgage loans from PFIs and simultaneously re-sell them to third party investors. Accordingly, we are not exposed to market risk with respect to these delivery commitments.

Advances

The optionality embedded in certain advances may create interest rate risk. When a member prepays an advance, we could suffer lower future income if the principal portion of the prepaid advance were invested in lower-yielding assets that continue to be funded by higher-cost debt. To protect against this risk, we generally charge a prepayment fee that makes us financially indifferent to a member's decision to prepay an advance or on some products, we structure the advance to address this risk. When we offer advances (other than short-term advances) that a member may prepay or expand (increase the par amount at a later date) without a fee, we may finance such advances with callable or noncallable debt or enter into a derivative to achieve hedge accounting treatment.

Fair Value Hedges

With issuances of certain putable advances, we purchase from the member an embedded option that enables us to extinguish the advance. We may hedge a putable advance by entering into a cancelable interest rate swap where we pay fixed interest payments and receive floating rate interest payments based off of LIBOR, OIS or SOFR. (For a discussion of the impact of the transition from LIBOR, see **LIBOR Transition** on page 56). This type of hedge is accounted for as a fair value hedge. We assess hedge effectiveness primarily under the qualitative hedge effectiveness method. However, in certain cases where all conditions are met, hedge effectiveness is assessed using the shortcut method. Currently, we principally apply shortcut accounting to certain nonputable and putable fixed-rate advances. In the case of certain putable advances that have features not meeting shortcut requirements, the transactions are primarily hedged under a highly effective hedge relationship. In those cases, the swap counterparty can cancel the derivative financial instrument on the same date that we can put the advance back to the member.

Economic Hedges

Interest rate swaps, swaptions, and/or futures contracts may be used to hedge the duration and convexity of the advances portfolio; as well as the prepayment risk on advances and the expander feature risk, which allows a member one or multiple opportunities to increase the principal amount of the advance. We issue both callable and noncallable debt intended to achieve cash flow patterns and liability durations similar to those expected on advances. We may also enter cancelable swaps in an effort to minimize the prepayment risk embedded in the advances.



(Dollars in tables in millions except per share amounts unless otherwise indicated)

Non-Residential MBS Investment Debt Securities

Our major security types, excluding Residential MBS, are based on the nature and risks of the security. These securities include, but are not limited to, the following:

- U.S. Government & other government related may consist of the sovereign debt of the United States; debt issued by government sponsored enterprises (GSE); and non-mortgage-backed securities of the Small Business Administration and Tennessee Valley Authority.
- Federal Family Education Loan Program - asset backed securities (FFELP ABS).
- State or local housing agency obligations.
- Multi-Family MBS guaranteed by GSE.

We endeavor to manage the interest rate and prepayment risk associated with these non-MBS securities through a combination of debt issuance and derivatives.

Fair Value Hedges

We use interest rate swaps to hedge certain AFS securities to shorten our duration profile in an increasing interest rate environment. Our hedge strategy focuses on hedging the benchmark interest rate of LIBOR, SOFR, or OIS by effectively converting fixed-rate securities into floating rate assets to reduce our exposure to rising interest rates. This type of hedge is accounted for as a fair value hedge. We assess hedge effectiveness primarily under the qualitative hedge effectiveness method. AFS securities are carried at fair value. The adjustment to the AFS security's carrying amount attributable to fair value changes in the benchmark interest rate for the relationship term, including partial hedge terms, is immediately recognized in interest income in our statements of income. Any gain or loss on these AFS securities that is not attributable to changes in the benchmark interest rate is recognized into AOCI. Changes in fair value on the derivative hedging these AFS securities in a fair value hedging relationship are immediately recognized into interest income into our statements of income in order to offset the fair value changes in the benchmark interest rate.

Economic Hedges

We may manage against prepayment and duration risk by funding investment debt securities with consolidated obligations that have call features, by economically hedging the prepayment risk with caps, floors, or by adjusting the duration of the securities by using derivatives to modify the cash flows of the securities.

We may also manage the risk arising from changing market prices and volatility of investment debt securities classified as trading debt securities by entering into derivative financial instruments (economic hedges) that offset the changes in fair value of the securities. The market value changes of both the trading debt securities and the associated derivatives are recognized in noninterest income.

Discount Notes

Cash Flow Hedges

We are exposed to the variability in the total net proceeds received from forecasted zero-coupon discount note issuances, which is attributable to changes in the benchmark interest rate, LIBOR. Our hedge objective/strategy is to hedge the total net proceeds received from "rolling" forecasted zero-coupon discount note issuances attributable to changes in LIBOR by entering into interest rate swap(s) to mitigate such risk. We are not using the cash flow hedge strategy for new transactions at this time, as we use LIBOR as the benchmark interest rate for cash flow hedges and we are not entering into new LIBOR-linked transactions. The life of the hedging relationship between the hedging instrument and the hedged item is from hedge inception until the hedge relationship ends, which is the last forecasted discount note issuance date of the hedge relationship. We are hedging the total net proceeds attributable to changes in LIBOR related to the forecasted issuance (and re-issuance) of zero-coupon fixed-rate discount notes with a three or six month tenor. We primarily use a pay-fixed interest rate swap or "swap" as the hedging instrument in which the interest rate resets every three or six months, whichever is applicable.



(Dollars in tables in millions except per share amounts unless otherwise indicated)

Consolidated Obligation Bonds

Fair Value Hedges

We endeavor to manage the fair value risk of a consolidated obligation by matching the cash inflow on the derivative with the cash outflow on the consolidated obligation bonds. For instance, when a fixed-rate consolidated obligation bond is issued, we may simultaneously enter into an interest rate LIBOR or OIS or SOFR swap in which we receive fixed cash flows from a counterparty designed to offset in timing and amount the cash outflows we pay on the consolidated obligation bond. We also hedge the benchmark rate on callable fixed-rate step-up consolidated obligation bonds at specified intervals where we own a call option(s) to terminate the consolidated obligation bond. The hedging instrument is a fixed-rate interest rate swap with a matching step-up feature that converts the callable fixed-rate step-up bond into a floating rate liability and has an offsetting call option(s) to terminate the interest rate swap. Such transactions are treated as fair value hedges. We assess hedge effectiveness primarily under the qualitative hedge effectiveness method. However, in certain cases where all conditions are met, hedge effectiveness is assessed using the shortcut method. We apply shortcut accounting to certain noncallable fixed-rate consolidated obligations.

Fair Value Option

We may elect the fair value option for financial instruments, such as advances, MPF Loans held for sale, consolidated obligation discount notes and bonds, in cases where hedge accounting treatment may not be achieved due to the inability to meet the hedge effectiveness testing criteria, or in certain cases where we wish to mitigate the risk associated with selecting the fair value option for other instruments. Electing the fair value option for a financial instrument allows us to better match the changes in fair value on that financial instrument with the interest rate swap economically hedging it.

Our Asset/Liability Management Committee and its subcommittees provide oversight of our risk management practices and policies. This includes routine reporting to senior Bank management and the Board of Directors, as well as maintaining the Income and Market Value Risk Policy, which defines our interest rate risk limits. The table below reflects the expected change in market value of equity for the stated increase or decrease in interest rates based on our models and related loss limit for each scenario established in the policy. For our down scenario shock analysis, the down shocks are constrained by scenarios provided by our regulator, which currently are limited so that shocked rates will not go negative but are subject to change. As a result, we floored the down shock scenario at 10 bps. Due to the low rate environment, this floor setting was triggered for some down shock scenarios presented below.

Scenario as of	December 31, 2021		December 31, 2020	
	Change in Market Value of Equity	Loss Limit	Change in Market Value of Equity	Loss Limit
-200 bp	\$ 487	\$ (450)	\$ 421	\$ (450)
-100 bp	(44)	(200)	225	(200)
-50 bp	(19)	(90)	140	(90)
-25 bp	(11)	(45)	96	(45)
+25 bp	(11)	(45)	(11)	(45)
+50 bp	(28)	(90)	(31)	(90)
+100 bp	(75)	(200)	(84)	(200)
+200 bp	(181)	(450)	(187)	(450)



FHLBank
Chicago Federal Home Loan Bank of Chicago

(Dollars in tables in millions except per share amounts unless otherwise indicated)

The following table outlines our hedge activity by hedged item or economic risk exposure, hedging instrument, hedge type and notional amount by hedging activity.

As of December 31,			Notional Amount	
Hedged Item/Economic Risk Exposure ^a	Hedge Type	Hedging Instrument	2021	2020
Investment Debt Securities	Fair value	Pay fixed, receive floating, interest rate swap	\$ 13,473	\$ 11,713
	Economic	Pay fixed, received floating, interest rate swap	200	4,550
			13,673	16,263
Advances	Fair value	Pay fixed, receive floating, interest rate swap (without options)	13,560	10,596
		Pay fixed, receive floating, interest rate swap (with options)	5,939	6,698
	Economic	Pay fixed, receive floating, interest rate swap (without options)	39	183
		Pay fixed, receive floating, interest rate swap (with options)	1,161	1,174
		Other	—	2
		20,699	18,653	
MPF Loans	Economic	A combination that may include swaps, swaptions, caps, floors, futures, forward settlements and/or to-be-announced (TBA) forward contracts	842	3,311
Discount Notes	Economic	Receive fixed, pay floating interest rate swap	—	2,000
	Cash flow	Pay fixed, receive floating, interest rate swap	1,177	1,177
			1,177	3,177
Consolidated Obligation Bonds	Fair value	Receive fixed, pay floating interest rate swap (without options)	9,855	8,145
		Receive fixed, pay floating interest rate swap (with options)	26,317	1,165
	Economic	Receive fixed, pay floating interest rate swap (without options)	36	269
		Receive fixed, pay floating interest rate swap (with options)	635	25
		Other	5	5
		36,848	9,609	
Intermediary transactions on behalf of members with counterparties	Economic	Pay fixed, receive floating, interest rate swap	2	2
Mortgage purchase commitments	Standalone	Mortgage delivery commitment	625	2,831
Total			\$ 73,866	\$ 53,846

^a Hedged item only applies to hedges that qualify for hedge accounting. Economic risk exposure applies economic hedges that are accounted for at fair value.



(Dollars in tables in millions except per share amounts unless otherwise indicated)

Measurement of Market Risk Exposure

To measure our exposure, we discount the cash flows generated from modeling the terms and conditions of all interest rate-sensitive securities using current interest rates to determine their fair values or spreads to the swap curve for securities where third party prices are used. This includes considering explicit and embedded options using a lattice model or Monte Carlo simulation. We estimate yield curve, option, and basis risk exposures by calculating the fair value change in relation to various parallel changes in interest rates, implied volatility, prepayment speeds, spreads to the swap curve and mortgage rates.

Our key interest rate risk exposures and interest rate risk within specific financial instruments are discussed below.

Key Interest Rate Risk Exposures

- *Yield curve risk* - We are exposed to interest rate movements in certain yield curves, such as LIBOR, SOFR, and OIS, which are used to discount the future cash flows attributable to our financial instruments, including derivatives. We measure our yield curve risk as follows:
 - *Yield risk* - Change in market value for a one basis point parallel increase in the swap curve.
- *Option risk* - We are exposed to option risk as the value of option positions (explicit and embedded) vary due to changes in the implied volatility of the yield curve as well as the yield curve itself. We measure our option risk as follows:
 - *Option risk (implied volatility)* – Change in market value for a one percent parallel increase in the swaption volatility.
 - *Option risk (prepayment speeds)* – Change in market value for a one percent increase in prepayment speeds.
- *Basis risk* - We are exposed to basis risk as the yields on different assets, liabilities and derivatives are determined on different yield curves. This includes (1) differences between the reference curve and the Office of Finance cost of funds or consolidated obligation curve; (2) changes in individual securities' spreads to the reference curve as a result of changes in supply, demand, and credit quality of different securities in the market; and (3) changes in mortgage rates relative to the reference curve. We measure our basis risk as follows:
 - *Basis risk (spread to swap curve)* – Change in market value for a one basis point parallel increase in the spread to the reference curve.
 - *Basis risk (mortgage spread)* – Change in market value for a one basis point increase in mortgage rates.



FHLBank Chicago Federal Home Loan Bank of Chicago

(Dollars in tables in millions except per share amounts unless otherwise indicated)

The following table summarizes our sensitivity to various interest rate risk exposures in terms of changes in market value.

	Option Risk			Basis Risk	
	Yield Curve Risk	Implied Volatility	Prepayment Speeds	Spread to Swap Curve	Mortgage Spread
As of December 31, 2021					
Advances	\$ (9)	\$ 2	\$ —	\$ (13)	\$ —
Mortgage Backed Securities	(11)	—	—	(11)	—
Other interest earning assets	(1)	—	—	(2)	—
Interest-bearing liabilities	13	11	—	14	—
Derivatives	12	(8)	—	—	—
Total	\$ 4	\$ 5	\$ —	\$ (12)	\$ —
As of December 31, 2020					
Advances	\$ (10)	\$ 2	\$ —	\$ (14)	\$ —
MPF Loans	(2)	(4)	(4)	(3)	1
Mortgage Backed Securities	(11)	—	—	(11)	—
Other interest earning assets	(1)	—	—	(3)	—
Interest-bearing liabilities	5	2	—	6	—
Derivatives	19	(1)	—	—	—
Total	\$ —	\$ (1)	\$ (4)	\$ (25)	\$ 1

As of December 31, 2021, our total sensitivity to changes in implied volatility using a lattice model and Monte Carlo simulation was \$5 million. At December 31, 2020, our sensitivity to changes in implied volatility was \$(1) million. These sensitivities are limited in that they do not incorporate other risks, including but not limited to, non-parallel changes in yield curves, prepayment speeds, and basis risk related to differences between the swap and the other curves. Option positions embedded in our mortgage assets and callable debt impact our yield curve risk profile, such that swap curve changes significantly greater than one basis point cannot be linearly interpolated from the table above.

Duration of equity is another measure to express interest rate sensitivity. We report the results of our duration of equity calculations to the FHFA each quarter. We measure duration of equity in a base case using the actual yield curve as of a specified date and then shock it with an instantaneous shift of the entire curve. The following table presents the duration of equity reported by us to the FHFA in accordance with the FHFA's guidance, which prescribes that down and up interest-rate shocks equal 200 basis points. The results are shown by duration of equity in years. We continue to monitor impacts of the COVID-19 pandemic on the markets and the economy which may impact our mortgage prepayment speed projections and duration of equity in the fourth quarter of 2021.

Scenario as of	Duration of equity in years	
	As of December 31, 2021	As of December 31, 2020
Down 200 bps	1.1	1.4
Base	0.4	0.6
Up 200 bps	1.5	1.4

As of December 31, 2021, on a U.S. GAAP basis, our fair value surplus (relative to book value) was \$458 million, and our market value of equity to book value of equity ratio was 107%, compared to \$330 million and 105% at December 31, 2020. Our market to book value of total capital for regulatory risk-based capital purposes differs from this GAAP calculation, as discussed in **Note 12 - Capital and Mandatorily Redeemable Capital Stock (MRCS)** to the financial statements.

Item 8. Financial Statements and Supplementary Data.

Our **Annual Financial Statements and Notes**, including the **Report of Independent Registered Public Accounting Firm**, are set forth starting on page F-1 to the financial statements.



(Dollars in tables in millions except per share amounts unless otherwise indicated)

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure.

None.

Item 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Under the supervision and with the participation of management, including our principal executive officer and principal financial officer, we conducted an evaluation of the effectiveness of the design and operation of our disclosure controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended, as of the end of the period covered by this report (the Evaluation Date). Based on this evaluation, the principal executive officer and principal financial officer concluded as of the Evaluation Date that the disclosure controls and procedures were effective such that information relating to us that is required to be disclosed in reports filed with the SEC: (i) is recorded, processed, summarized, and reported within the time periods specified in SEC rules and forms, and (ii) is accumulated and communicated to management, including our principal executive officer and principal financial officer, as appropriate to allow timely decisions regarding required disclosure.

Management's Report on Internal Control over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting as such term is defined in Exchange Act 13a-15(f). Internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external reporting purposes in accordance with generally accepted accounting principles. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements.

Our management, which includes our principal executive officer and principal financial officer, assessed the effectiveness of our internal control over financial reporting as of December 31, 2021. In making this assessment, management uses as guidance the framework developed by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in "Internal Control - Integrated Framework (2013)" and other authoritative guidance on governance and internal control. The assessment included extensive documenting, evaluating and testing the design and operating effectiveness of our internal control over financial reporting. Management concluded that based on its assessment, our internal control over financial reporting was effective as of December 31, 2021. The effectiveness of our internal control over financial reporting as of December 31, 2021, has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report included herein.

Changes in Internal Control over Financial Reporting

For the quarter ended December 31, 2021, there were no changes in our internal control over financial reporting that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Consolidated Obligations

Our disclosure controls and procedures include controls and procedures for accumulating and communicating information relating to our joint and several liability for the consolidated obligations of other FHLBs. Because the FHLBs are independently managed and operated, our management relies on information that is provided or disseminated by the FHFA, the Office of Finance or the other FHLBs, as well as on published FHLB credit ratings, in determining whether the FHFA's joint and several liability regulation is probable to result in a direct obligation for us or whether it is reasonably possible that we will accrue a direct liability.

Our management also relies on the operation of the FHFA's joint and several liability regulation that requires each FHLB to file with the FHFA a quarterly certification that it will remain capable of making full and timely payment of all of its current obligations, including direct obligations, coming due during the next quarter. In addition, if an FHLB cannot make such a certification or if it projects that it may be unable to meet its current obligations during the next quarter on a timely basis, it must file a notice with the FHFA. Under the FHLB Act and related regulation, the FHFA may order any FHLB to make principal and interest payments on any consolidated obligations of any other FHLB, or allocate the outstanding liability of an FHLB among all remaining FHLBs on a pro rata basis in proportion to each FHLB's participation in all consolidated obligations outstanding or on any other basis.

Based on these factors, we do not expect to pay any additional amounts on behalf of other FHLBs under our joint and several liability as of December 31, 2021, and as a result, we did not accrue a liability. For additional information, see **Note 10 - Consolidated Obligations** and **Note 16 - Commitments and Contingencies** to the financial statements.

Item 9B. Other Information.

None.



(Dollars in tables in millions except per share amounts unless otherwise indicated)

PART III

Item 10. Directors, Executive Officers, and Corporate Governance.

Our Board is comprised of a combination of industry directors elected by the Bank's member institutions (referred to as member directors) on a state-by-state basis and independent directors elected by a plurality of the Bank's members (referred to as independent directors). No member of the Bank's management may serve as a director of an FHLB. Our Board currently includes ten member directors and eight independent directors.

Nomination of Member Directors

Member directors are required by statute and regulation to meet certain specific criteria in order to be eligible to be elected and serve as Bank directors. To be eligible an individual must:

- be an officer or director of a Bank member institution located in the state in which there is an open Bank director position;
- the member institution must be in compliance with the minimum capital requirements established by its regulator; and
- the individual must be a U.S. citizen.

These criteria are the only permissible eligibility criteria that member directors must meet. The FHLBs are not permitted to establish additional eligibility criteria for member directors or nominees. For member directors, each eligible institution may nominate representatives from member institutions in its respective state to serve four-year terms on the Board of the Bank. As a matter of statute and regulation, only FHLB stockholders may nominate and elect member directors. FHLB Boards are not permitted to nominate or elect member directors, although they may appoint a director to fill a vacant directorship in advance of the next annual election. Specifically, institutions which are members required to hold capital stock in the Bank as of the record date (i.e., December 31 of the year prior to the year in which the election is held) are entitled to participate in the election process unless they have been involuntarily terminated as a member at the time of voting. With respect to member directors, under FHFA regulations, no director, officer, employee, attorney, or agent of the Bank (except in his/her personal capacity) may, directly or indirectly, support the nomination or election of a particular individual for a member directorship. Because of the structure of FHLB member director nominations and elections, we do not know what factors our member institutions consider in selecting member director nominees or electing member directors.

Nomination of Independent Directors

For independent directors, the members elect these individuals on an at large basis to four-year terms, subject to FHFA designation. Independent directors cannot be officers or directors of a Bank member, and must meet certain statutory and regulatory eligibility criteria. To be eligible to serve as an independent director, an individual must be a citizen of the United States and a bona fide resident of the district in which the Bank is located. FHFA regulations require that an independent director (other than a public interest independent director) must have experience in or knowledge of one or more of the following areas: auditing and accounting, derivatives, financial management, organizational management, project development, risk management practices and the law. In addition, the FHFA regulation requires a public interest independent director to have more than four years' experience representing consumer or community interests in banking services, credit needs, housing or consumer financial protection.

Under FHFA regulation, our members are permitted to nominate candidates to be considered by the Bank to be included on the nominee slate and our Board determines the nominees after consulting with the Bank's Community Investment Advisory Council (Advisory Council). FHFA regulations permit a Bank director, officer, attorney, employee or agent and our Board and Advisory Council to support the candidacy of any person nominated by the Board for election to an independent directorship. Our Board selected independent director nominees based on their qualifications as described in each independent director's biography below.



(Dollars in tables in millions except per share amounts unless otherwise indicated)

2021 Director Election

Voting rights and process with regard to the election of member and independent directors are set forth in the FHLB Act and FHFA regulations. For the election of both member directors and independent directors, each eligible member institution is entitled to cast one vote for each share of capital stock that it was required to hold as of the record date; however, the number of votes that each institution may cast for each directorship cannot exceed the average number of shares of capital stock that were required to be held by all member institutions located in that state on the record date. The only matter submitted to a vote of shareholders in 2021 was the election of certain member and independent directors, which occurred in the fourth quarter of 2021 as described above. We conducted this election to fill two open member directorships and two open independent directorships for 2022 as designated by the FHFA. In 2021, the nomination and election of directors was conducted electronically. No meeting of the members was held in regard to the election. Our Board does not solicit proxies, nor are eligible member institutions permitted to solicit or use proxies to cast their votes in an election for member or independent directors. Information about the results of the election, including the votes cast, was reported in a Form 8-K filed on October 27, 2021, as amended by a Form 8-K/A filed on December 14, 2021. Additionally, as reported in a Form 8-K filed on May 26, 2021, our Board appointed Andrea L. Zopp to fill a vacant directorship on the Board, effective as of June 1, 2021.

Information Regarding Current Directors of the Bank

The following table provides information regarding each of our directors as of February 28, 2022.

Name	Age	Director Since	Expiration of Term as of December 31,
James T. Ashworth, Chairperson ^a	70	2013	2024
Joseph Fazio III, Vice Chairperson ^b	60	2017	2024
Edward P. Brady ^d	58	2009	2023
Mary J. Cahillane ^d	70	2011	2024
Mark J. Eppli ^d	60	2012	2025
Michelle L. Gross ^a	51	2015	2024
James H. Hegenbarth ^b	58	2018	2025
Phyllis Lockett ^d	56	2015	2023
David J. Loundy ^a	53	2020	2023
David R. Pirsein ^a	69	2015	2022
John K. Reinke ^b	70	2012	2023
Leo J. Ries ^c	68	2009	2022
Lois A. Scott ^d	61	2017	2023
Michael G. Steelman ^a	71	2011	2022
Ty R. Taylor ^b	54	2019	2022
Daniel G. Watts ^a	62	2018	2025
Maria E. Wynne ^d	64	2022	2025
Andrea L. Zopp ^c	65	2021	2024

^a Illinois member director.

^b Wisconsin member director.

^c Public interest independent director.

^d Independent director.



(Dollars in tables in millions except per share amounts unless otherwise indicated)

James T. Ashworth joined CNB Bank & Trust, N.A. in 1978 and has served in many capacities, including as Vice Chairman since 1989 and as President and CEO from 1989 to 1997, as well as serving as Vice Chairman and President and CEO of its holding company, CNB Bank Shares, Inc. since 1989. Mr. Ashworth served as Chairman of the Community Bankers Association of Illinois (CBAI) and as an elected director of the Independent Community Bankers of America, on the state association's Legislative Committee and the national association's Regulation Review Committee; he was named CBAI's "Outstanding Member" in 1995. He also has previously served on the Illinois State Treasurer's Community Bank Advisory Council and as an appointed delegate to the White House Conference on Small Business. Mr. Ashworth earned a Bachelor of Science degree from the University of Miami, and is a graduate of the Graduate School of Banking in Madison, Wisconsin, as well as its post-graduate program. Mr. Ashworth has also served on numerous local boards, including a community hospital, a chamber of commerce, an economic development corporation, and a community foundation.

Mr. Ashworth serves as the Bank's Chairperson of the Board and Chairperson of the Executive & Governance Committee. He also serves as an ex officio member of the following Board committees of the Bank: Affordable Housing, Audit, Human Resources & Compensation, Operations & Technology, Public Policy, and Risk Management.

Edward P. Brady is the President and CEO of Home Builders Institute (HBI), a position he's held since November 2018. HBI is a national nonprofit that trains underserved populations, including veterans, transitioning military, high school students and justice-involved youth and adults for careers in the building industry. He is also the president/owner of Brady Homes in Bloomington, Illinois since 1988. He is a licensed contractor in Tennessee. He serves on the Board of Directors for the National Association of Home Builders and the Home Builders Association of Illinois. Mr. Brady is a former director of Freestar Bank, served as Chairman of the Brady for Illinois 2010 campaign, and has previously served on the Board of Habitat for Humanity for Illinois, the Illinois Chamber of Commerce, the Board of Economic Development Council for McLean County, and other community organizations. In 2016, he was the chairman for the National Association of Homebuilders. He currently serves as a director of Enterprise Community Partners and Build Strong Academy, an affiliation associated with skill trades training academies throughout the country and a non-profit 501(c)(3) organization. He also served for three years on the Bipartisan Policy Center's Housing Commission as a commissioner. He has a Bachelor of Science degree from Illinois Wesleyan University. He was inducted into the Illinois Home Builders Hall of Fame in 2018. The Board nominated Mr. Brady to serve as an independent director based on his knowledge and experience in organizational management and project development, as indicated by his background.

Mr. Brady serves on the following Board committees of the Bank: Affordable Housing, Executive & Governance (Alternate) and Public Policy (Chairperson).

Mary J. Cahillane was Chief Financial Officer and Chief Investment Officer of the Spencer Foundation since 2003. She retired in May 2015. She previously worked for Bank of America from 1994 to 2003, Continental Bank from 1981 to 1985 and again from 1989 to 1994 and Texas Commerce Bank from 1985 to 1989, holding a variety of senior roles in asset liability management, risk management, and finance. More specifically, Ms. Cahillane was the Head of Funding and Asset Liability Management at Continental Bank and the Chief Financial Officer for the Global Retail Bank at Bank of America. Following Bank of America's merger with NationsBank, she held the role of Deputy Treasurer of the corporation responsible for Balance Sheet Management, Pension Plan Investments, Corporate Securitizations and Structured Transactions, Rating Agency Relationships and the Parent Company Debt and Liquidity Plan. She was also the organization's first Operational Risk Executive and was a member of the organization's Management Operating Committee. Ms. Cahillane currently serves on the boards of IES Abroad, St. John Berchmans School, Children's First Fund, and PEAK (Partnership to Educate and Advance Kids). Until the sale of the company in October 2017, she served on the board of Forsythe Technology, Inc. and previously served on the boards of ShoreBank Corporation and ShoreBank. The Board nominated Ms. Cahillane to serve as an independent director based on her knowledge of and experience in financial management and risk management practices, as indicated by her background.

Ms. Cahillane serves on the following Board committees of the Bank: Audit, Executive & Governance, and Risk Management (Chairperson).

Mark J. Eppli is currently the Director of the Graaskamp Center for Real Estate, Wisconsin School of Business at the University of Wisconsin - Madison, a position he's held since August 2018. Dr. Eppli was previously Robert B. Bell, Sr. Chair in Real Estate at Marquette University in Milwaukee, Wisconsin from 2002 to 2018, and served as the Director of the Center for Real Estate from 2009 to 2018. He also served as Interim Keyes Dean of Business at Marquette University from 2012 to 2015. Dr. Eppli was also Assistant, Associate, and Full Professor of Finance and Real Estate in the School of Business and Public Management at The George Washington University from 1991 to 2002. He was an active instructor and author for the Urban Land Institute from 1992 to 2012. Dr. Eppli was also a Lecturer and Teaching Assistant at the University of Wisconsin-Madison from 1987 to 1991. Prior to obtaining his doctorate, Dr. Eppli pursued a career in commercial real estate, serving as Manager of Research and Investment Analysis with PM Realty Advisors from 1985 to 1986 and a Specialist in Real Estate Acquisitions at GE Capital Corporation from 1984 to 1985. Dr. Eppli is past recipient of the Greater Washington Urban League's "Volunteer of the Year," Urban Land Institute's "Star Performer, and LISC-Milwaukee's "Navigator" awards for his efforts to attract minorities to the commercial real estate industry. He is a Board member and past President of the Real Estate Research Institute and



(Dollars in tables in millions except per share amounts unless otherwise indicated)

Distinguished Fellow at NAIOP, the Commercial Real Estate Development Association. The Board nominated Dr. Eppli to serve as an independent director based on his knowledge of and experience in financial management and risk management practices, as indicated by his background.

Dr. Eppli serves on the following Board committees of the Bank: Affordable Housing and Risk Management (Vice Chairperson).

Joseph Fazio III is Co-founder, Board Chairman and CEO of Commerce State Bank, which opened in 2005 and ended 2021 with more than \$800 million in total assets. Mr. Fazio is the only CEO Commerce State Bank has had. Mr. Fazio also serves as a director of the bank's holding company, Commerce Financial Holdings, Inc. Prior to founding Commerce State Bank, Mr. Fazio led a privately-held marketing company from 2002 to 2004, was Director of Corporate Marketing for Metavante (now FIS) from 1998 to 2002, led Personal Trust Administration for M&I Trust Company (now BMO) from 1995 to 1998, and held several management positions with IBM from 1983 to 1995. Mr. Fazio is a 1983 graduate of St. Norbert College, and in 1988 earned his master's degree from Edgewood College. He served as a member of the board of directors of the Wisconsin Bankers Association from 2013 to 2016. Mr. Fazio has served as an elected official for the City of Cedarburg and has held several city board appointments. He is the past President of the Greater Cedarburg Community Foundation and chaired the 2018 Washington County United Way Campaign. He has served on the board of non-profits such as St. Francis Borgia School, Walker's Point Youth and Family Center, and the Cedarburg Athletic Booster Club. Mr. Fazio is currently President of the Wisconsin Chapter of the Private Directors Association, and a member of the National Association of Corporate Directors and is an NACD Board Leadership Fellow. Mr. Fazio is the author of the book, "This Might be a Dumb Question, but How Does Money Work?"

Mr. Fazio serves as the Bank's Vice Chairperson of the Board and Vice Chairperson of the Executive & Governance Committee. Mr. Fazio also serves on the following Board committees of the Bank: Audit (Vice Chairperson) and Affordable Housing (Chairperson).

Michelle L. Gross has served as Executive Vice President/Chief Operating Officer, Information Systems Officer, and Director of the State Bank of Bement in Bement, Illinois since 2012, in addition to being Community Bank President of the State Bank of Bement-Monticello facility. She has worked at the State Bank of Bement since 1996 in roles with increasing responsibilities, including as Vice President and Information Systems Officer from 2008 to 2012. Ms. Gross currently serves as a director at the State Bank of Cerro Gordo in Cerro Gordo, Illinois and Bement Bancshares, Inc. in Bement, Illinois. She is a former director at The First National Bank of Ivesdale in Ivesdale, Illinois. Ms. Gross is active in a variety of community service organizations and with the Illinois Bankers Association. Through the Illinois Bankers Association, Ms. Gross has served on a number of committees and is currently a member of its Executive Committee, Board of Directors and Chairman of the Illinois Bankpac Board of Directors. She also serves on the Board of Directors of the Kirby Medical Center and is Chairman of the Kirby Foundation, benefiting Kirby Medical Center, and is also Chairman of the Bement Foundation. Ms. Gross is a graduate of the Graduate School of Banking in Madison, Wisconsin, and earned a Bachelor of Science from Western Illinois University.

Ms. Gross serves on the following Board committees of the Bank: Executive & Governance, Human Resources & Compensation (Chairperson) and Risk Management.

James H. Hegenbarth has served as President/CEO of The Park Bank in Madison, Wisconsin since 1999 and a member of its Board of Directors since 1997. He has been in the banking industry since 1985 and served in roles with increasing responsibilities, including consumer loan officer, credit analyst, credit manager, Associate Vice President of Business Banking, Vice President of Business Banking, and Senior Vice President of Lending. Mr. Hegenbarth previously worked at First Bank, N.A. (now U.S. Bank). He is a former Wisconsin Bankers Association (WBA) Board member and a current member of the Government Relations Committee. Mr. Hegenbarth is a Board member of the American Family Children's Hospital at UW Madison, a trustee and Chairman of the Business and Finance Committee at Edgewood High School and the Chairman of the Ronald McDonald House Madison Capital Campaign. He is also a new member of the American Bankers Association (ABA) FHLB Committee. Mr. Hegenbarth is a graduate of the Graduate School of Banking, University of Wisconsin-Madison, and earned his undergraduate degree in Economics from the University of Wisconsin-Madison.

Mr. Hegenbarth serves on the following Board committees of the Bank: Audit and Human Resources & Compensation.



(Dollars in tables in millions except per share amounts unless otherwise indicated)

Phyllis Lockett has served since 2014 as the founding CEO of LEAP Innovations, a national non-profit organization that works with educators and technology companies from across the nation to research, pilot and scale new instructional designs and technology solutions that advance student learning. Prior to her role at LEAP, Ms. Lockett served as President and CEO of New Schools for Chicago, a venture philanthropy organization that invests in the start-up of new public schools, since 2005. Ms. Lockett served from 1999 to 2005 as Executive Director of the Civic Consulting Alliance, a pro-bono consulting firm sponsored by the Civic Committee of the Commercial Club of Chicago that leads strategic planning initiatives, process improvement and program development projects for government agencies. She has played an instrumental role in some of the largest initiatives for the City of Chicago, Chicago Public Schools, and Chicago Housing Authority, including the reorganization of the management structure, resident relocation, capital construction, asset management, and economic development strategies to support the Chicago Housing Authority's \$1.5 billion Plan for Transformation. Currently, Ms. Lockett serves as a director of the CME Group. Ms. Lockett earned a Master of Management from the Kellogg Graduate School of Management at Northwestern University and a Bachelor of Science in Industrial Engineering from Purdue University. The Board nominated Ms. Lockett to serve as an independent director based on her knowledge of and experience in organizational management, financial management and project development, as indicated by her background.

Ms. Lockett serves on the following Board committees of the Bank: Executive & Governance (Alternate), Human Resources & Compensation (Vice Chairperson), and Operations & Technology (Vice Chairperson).

David J. Loundy has served as Chairman and CEO of Devon Bank headquartered in Chicago, Illinois since 2012. Mr. Loundy also serves as Vice-Chairman of Devon Bank's holding company (Devon Bancorp, Inc.), Managing Member of Devon Bank's investment pool affiliates (Abraham's River, LLC; and The Acheron Cash Fund, LLC; and their manager, 650 Asset Management LLC) and Chairman of Devon Bank's "sponsored" public charity, The Loundy Charitable Foundation. Prior to joining Devon Bank in 2003, Mr. Loundy practiced intellectual property and computer law and served as an adjunct professor (LLM. and MBA programs) and law school administrator. Mr. Loundy is a past board member of the Community Banker's Association of Illinois (CBAI), and is a current board member of the CBAI's subsidiary Community BancService Corporation, and he serves on CBAI's Innovation Committee. He has been a board member or endowment board member for a number of community and religious organizations. He is a frequent writer and speaker on religion-based financing issues. Mr. Loundy earned a Bachelor of Arts in Telecommunications from Purdue University and a Juris Doctorate from the University of Iowa, both with distinction.

Mr. Loundy serves on the following Board committees of the Bank: Audit and Public Policy.

David R. Pirsein has served as President of First National Bank in Pinckneyville, First Perry Bancorp Inc. and its subsidiary, First National Insurance Services, Inc. since 2005. He currently serves as the chairman of the board of directors of its holding company, First Perry Bancorp, Inc. He has been an active community banker for over 43 years. Mr. Pirsein is a board member and executive committee member of the Shazam Inc. board, an EFT network and payments processor. He is the past Chairman and board member of the Community Bankers Association of Illinois and a board member of its subsidiary, the Community BancService Corporation. He also serves on the board of governors and is an executive board member of the Illinois Real Estate Title Company, LLC. He is an active participant on the Pinckneyville strategic planning committee and is a Chamber member. Mr. Pirsein previously served two terms on the St. Louis Federal Reserve Board where he held the position of Audit committee chairman for several years. He graduated from Southern Illinois University Carbondale with a degree in Finance and Banking and has attended many banking schools, including the Graduate School of Banking in Madison, Wisconsin.

Mr. Pirsein serves on the following Board committees of the Bank: Executive & Governance (Alternate), Operations & Technology (Chairperson) and Public Policy (Vice Chairperson).

John K. Reinke has been with The Stephenson National Bank & Trust since 1974, where he served as President from 2000 to 2013. Mr. Reinke currently serves as Chair of the board of directors of The Stephenson National Bank & Trust subsequent to his retirement as President & CEO in April 2013. Mr. Reinke previously served on the Government Relations Administrative Council for the American Bankers Association. In addition, he served on the Board of the Wisconsin Bankers Association from 2002 through 2008 and as Chairman from 2006 to 2007. Mr. Reinke also has previously served as a Bay Area Medical Center board member and Treasurer, President of the University of Wisconsin - Marinette Foundation, Inc., President of the Menominee Area Chamber of Commerce, Chairman of the M&M Area Community Foundation, M&M Area Great Lakes Sport Fishermen President, M&M YMCA President, and Marinette County Revolving Loan Committee President.

Mr. Reinke serves on the following Board committees of the Bank: Executive & Governance, Human Resources & Compensation, and Risk Management.

Leo J. Ries was the Executive Director of Local Initiatives Support Corporation (LISC) in Milwaukee, Wisconsin from 2000 until he retired in 2015. He currently works as a private consultant, providing management services for the Prism Economic Development Corporation (PRISM) and the Wisconsin Preservation Fund (WPF). PRISM and WPF are both nonprofit neighborhood development organizations operating in the City of Milwaukee, Wisconsin. Previously for three years, he served as



(Dollars in tables in millions except per share amounts unless otherwise indicated)

executive director for the Martin Luther King Economic Development Corporation. He currently serves on the Board of Directors for Near West Side Partners, Inc. and Lead2Change, Inc., as well as the Wisconsin Board of Directors for CommonBond Communities, Inc., and the Advisory Council for First-Ring Industrial Redevelopment Enterprise, Inc. Prior to his tenure at LISC, he was Deputy Commissioner for the City of Milwaukee in the Department of Neighborhood Services in 1999 and Director of the Housing and Neighborhood Development Division of the Department of City Development from 1992 to 1998. He served as the Director of the Community Block Grant Administration in the Department of Administration from 1990 to 1992. He served on the Board of Directors of the Neighborhood Improvement Development Corporation from 1992 to 1999, Select Milwaukee, Inc., from 1996 to 2000, Walker's Point Development Corporation from 1999 to 2000, and Canticle Court/Juniper Court from 1999 to 2000. The Board nominated Mr. Ries to serve as a public interest director based on his experience representing community interests in housing, as indicated by his background.

Mr. Ries serves on the following Board committees of the Bank: Affordable Housing (Vice Chairperson) and Operations & Technology.

Lois A. Scott has served as President of Epoch Advisors since 2015. From 2011 to 2015, Ms. Scott served as the Chief Financial Officer for the City of Chicago, the first woman to ever serve in that capacity. In 2011, Ms. Scott co-founded and chaired the Municipal CFO Forum with the Harris School of the University of Chicago. She now chairs the Advisory Board of the Program for Excellence and Equity in Public Finance at Milken Institute. From 2002 to 2011, Ms. Scott was Chief Executive Officer of a financial advisory firm that served large corporate and governmental clients. Prior to that, she served as President and Vice Chair of a technology company that provided a family of services to schools. Ms. Scott started her career at First Chicago (now JPMorgan), where she was responsible for governmental, healthcare and higher education clients in an eight-state region. She also worked for Bank of America, Donaldson Lufkin & Jenrette and chaired the Management Committee of the Export-Import Bank of the U.S., after serving as a White House Fellow. From 2015 to August 2017, Ms. Scott served as a director on the board of MBIA, Inc. She served as Vice Chair and Audit Committee Chair of the Chicago Stock Exchange, where she was a director from 2016 to 2018 prior to its sale to the New York Stock Exchange. She currently serves on the board of the Kroll Bond Rating Agency, and Enwave Energy. Ms. Scott has served on the board of numerous nonprofit organizations focused on educational opportunity, economic empowerment, leadership development, and sustainable finance practices. The Board nominated Ms. Scott to serve as an independent director based on her knowledge of and experience in accounting and financial management practices, as indicated by her background.

Ms. Scott serves on the following Board committees of the Bank: Audit (Chairperson), Executive & Governance, and Risk Management.

Michael G. Steelman has been with the Farmers and Merchants State Bank of Bushnell and its holding company, Prairieland Bancorp., Inc., since 1984. He has served as Chief Executive Officer of Farmers and Merchants State Bank of Bushnell since 1996, and was appointed Chairman in 2001. In addition, Mr. Steelman has served as President and Chairman of the holding company since 2001. Mr. Steelman served as Chairman of the Illinois Bankers Association from 2008 to 2009, and was actively involved in the legislative and regulatory process at federal and state levels. An attorney practicing in banking law, Mr. Steelman is a member of the Illinois State Bar Association, and a graduate of the University of Wisconsin Graduate School of Banking. Mr. Steelman also serves as Secretary and Director of the Bushnell Economic Development Corporation.

Mr. Steelman serves on the following Board committees of the Bank: Executive & Governance, Human Resources & Compensation and Public Policy.

Ty R. Taylor has been President and CEO of Waukesha State Bank since 2004, and has been with the bank since 1991. Prior to becoming President and CEO of Waukesha State Bank, he oversaw the bank's commercial and mortgage lending services, among other responsibilities. From 1990 to 1991, Mr. Taylor was employed at M&I Marshall & Ilsley Bank. Mr. Taylor has volunteered extensively with various local non-profit organizations. Mr. Taylor has a B.A. in Economics from Wheaton College, Wheaton, IL, and is a graduate of the Graduate School of Banking at the University of Wisconsin-Madison.

Mr. Taylor serves on the following Board committees of the Bank: Operations & Technology and Risk Management.

Daniel G. Watts is a Director and the President of Forest Park National Bank and Trust Company, which he joined in January 2010. Mr. Watts has been an executive banking professional for over 25 years. He began his career at The American National Bank and Trust Company of Chicago, after which he became an Executive Officer and Director at Cosmopolitan Bank and Trust, Pullman Bank and Trust and Park National Bank (all subsidiaries of the former FBOP Corporation). Mr. Watts currently serves as a board member of Community Investment Corporation (CIC) and Chicago Neighborhood Initiatives (CNI). Previously, he served as a director of Neighborhood Housing Services (NHS). Mr. Watts is the past Board Chairman of the Illinois Bankers Association and past President of The Bankers Club of Chicago. Mr. Watts earned an undergraduate degree in Economics from Northwestern University, a law degree from Loyola University of Chicago School of Law, and an MBA from the University Of Chicago Booth School Of Business.



(Dollars in tables in millions except per share amounts unless otherwise indicated)

Mr. Watts serves on the following Board committees of the Bank: Affordable Housing and Audit.

Maria E. Wynne is the Chief Executive Officer of Leadership Greater Chicago (LGC), the region's premiere civic leadership development organization. Since 2014, Ms. Wynne has led the transformation of LGC, representing the organization at the highest levels of business, government, and social services. From 2008 to 2013, she served as Chief Executive Officer for the Girl Scouts of Greater Chicago and Northwest Indiana. Prior to that, she distinguished herself as an innovator and transformational leader at Microsoft and Xerox. Ms. Wynne is a member of the Commercial Club of Chicago, the Economic Club of Chicago, The Chicago Network, and The Chicago Club. She serves as Board President for the Goodman Theatre and Treasurer for P33, which was founded to work collaboratively with Chicago communities to make Chicago an inclusive and top Tier 1 "Tech City" in the United States. She also serves as a Trustee of North Central College, she is an Advisory Board member of Chicago Innovation and co-chairs the Advisory Council for the Civic Consulting Alliance. Ms. Wynne earned her Bachelor of Arts degree at North Central College and a Master of Business Administration from Northern Illinois University. She has continued her executive education at Northwestern University's Kellogg School of Management, the Harvard Business School, and the Center for Creative Leadership. The Board nominated Ms. Wynne to serve as an independent director based on her knowledge of and experience in financial management, organizational management and project development, as indicated by her background.

Ms. Wynne serves on the following Board committees of the Bank: Human Resources & Compensation and Operations & Technology

Andrea L. Zopp is an accomplished executive, board member, and civic leader. She has served as Managing Partner at Cleveland Avenue in Chicago, Illinois since 2021. At Cleveland Avenue, Ms. Zopp leads the organization's work investing in and supporting minority and women entrepreneurs and their companies. Ms. Zopp also currently serves as a director of Relativity, a global e-discovery and data management software company and as a director of Empowerment & Inclusion Capital I Corp., a special purpose acquisition company (EPWR-NYSE). From 2017 to 2020, Ms. Zopp was Chief Executive Officer and President of World Business Chicago, where she led an economic development organization focused on business recruitment, expansion and support and job creation. From 2016-2017, Ms. Zopp served as Deputy Mayor, Neighborhood Development and Community Engagement for the City of Chicago and from 2010-2015, she served as President and CEO of the Chicago Urban League, a 100 year old non-profit that works for economic, educational and social progress for African Americans. She is an experienced business leader and attorney with significant transaction, litigation, and human capital experience serving as a trusted advisor to the CEO and executive teams at three publicly traded companies. Ms. Zopp holds a BA in History of Science from Harvard College and a J.D. from Harvard Law School, and she served on the Harvard Alumni Association Board and the Board of the Chicago Chapter of the Harvard Alumni Association. The Board appointed Ms. Zopp to serve as a public interest director based on her experience in representing community interests in credit needs and housing, as indicated by her background.

Ms. Zopp serves on the following Board committees of the Bank: Public Policy and Operations & Technology.

There are no family relationships among the above directors or our executive officers.



(Dollars in tables in millions except per share amounts unless otherwise indicated)

Audit Committee

Our Audit Committee is comprised of non-executive directors. The Audit Committee Charter is available in full on our website at <http://fhlbc.com/docs/default-source/about-us-pdfs/ac-charter.pdf>.

Audit Committee Report

March 10, 2022

The Audit Committee is composed of six non-executive directors, two of whom are non-member directors, and operates under a written charter adopted by the Board of Directors that was last amended on April 27, 2021. Our Board of Directors determined that all Audit Committee members (Directors Scott, Cahillane, Fazio, Hegenbarth, Watts, and Loundy) are “Audit Committee financial experts” for purposes of SEC requirements. Our Board of Directors elected to use the New York Stock Exchange definition of “independence” and, in doing so, concluded that each of the Directors on the Audit Committee, during 2021 and currently, is not independent as they are officers or directors of member institutions which do business with the Bank, with the exception of Directors Scott and Cahillane, who do not serve as officers or directors of a Bank member. Under Federal Housing Finance Agency (FHFA) regulations applicable to members of the Audit Committee, each of the Audit Committee members is independent. For further discussion about the Board’s analysis of director independence under the New York Stock Exchange rules, see **Director Independence** on page 123.

In accordance with its written charter adopted by the Board of Directors, the Audit Committee, assists the Board of Directors in fulfilling its responsibility for oversight of the Bank’s accounting, reporting and financial practices, including the integrity of its financial statements, among other areas. The Audit Committee is directly responsible for the appointment and oversight of our independent auditors, PricewaterhouseCoopers LLP (PwC), including review of their qualifications, independence and performance. Among other duties, the Audit Committee also oversees:

- the integrity of the Bank’s financial statements, the Bank’s accounting and financial reporting processes and systems;
- internal control over the Bank’s financial reporting and safeguarding the Bank’s assets;
- the programs, policies and systems of the Bank designed to ensure compliance with applicable laws, regulations, other legal and regulatory requirements and policies;
- the programs, policies and systems of the Bank designed to ensure the integrity and reliability of Bank operations and technology; including cybersecurity;
- practices with respect to risk assessment and risk management;
- independent auditor’s qualifications and independence;
- performance of the internal audit function; and
- performance of the independent auditor.

The Bank is one of 11 district Federal Home Loan Banks (FHLBs) that together with the Office of Finance (OF), comprise the Federal Home Loan Bank System (System). Each FHLB operates as a separate entity with its own management, employees, and board of directors and each is regulated by the FHFA. The OF has responsibility for the issuance of consolidated obligations on behalf of the FHLBs, and for publishing combined financial reports (CFRs) of the FHLBs. Accordingly, the System has determined that it is optimal to have the same independent audit firm to coordinate and perform the separate audits of the OF and each FHLB. The FHLBs and OF collaborate in selecting, setting the compensation of, and evaluating the performance of the independent auditor, but the responsibility for the appointment and oversight of the independent auditor remains solely with the audit committees of each FHLB and the OF.

PwC has been the independent auditor for the System and the Bank since 1990. The Audit Committee engages in rigorous evaluations each year on the 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 FHLBs and the OF. Specific considerations included:

- an analysis of the risks and benefits of retaining the same firm as independent auditor versus engaging a different firm, including consideration of:



(Dollars in tables in millions except per share amounts unless otherwise indicated)

- PwC engagement audit partner, engagement quality review partner and audit team rotation;
 - PwC's tenure as the Bank's and the Systems' independent auditor;
 - benefits associated with engaging a different firm as independent auditor; and
 - potential disruption and risks associated with changing the independent auditor.
- PwC's depth and breadth of understanding of our business, operations, and accounting policies and practices;
 - PwC's historical and recent performance on the Bank's audit, including the results of an internal survey of PwC service and quality;
 - an analysis of PwC's known legal risks and significant proceedings;
 - external data relating to audit quality and performance, including recent Public Company Accounting Oversight Board (PCAOB) audit quality inspection reports on PwC and its peer firms as well as metrics indicative of audit quality;
 - the appropriateness of PwC's fees, on both an absolute basis and as compared to its peer firms; and
 - the diversity of PwC's leadership and staff assigned to the engagement.

Audit Fees represent fees for professional services provided in connection with the audit of the Bank's annual financial statements and internal control over financial reporting and reviews of the Bank's quarterly financial statements, regulatory filings, consents and other SEC matters.

The Audit Committee has reviewed and approved the fees paid to the independent auditor for audit, audit-related and non-audit services, and the Audit Committee has determined that PwC does not provide any non-audit services that would impair its independence. To the Audit Committee's knowledge, there are no other matters which cause the Audit Committee to believe PwC is not independent.

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 the Bank. For lead and concurring partners, the maximum number of consecutive years of service in that capacity is five years. The process for selection of the Bank's lead audit partner pursuant to this rotation policy involves a meeting between the Chairperson of the Audit Committee and the candidate for the role, as well as discussion by the full Audit Committee and management. Our current lead partner has served since 2019.

Based on its reviews discussed above, the Audit Committee recommended to the Board of Directors the appointment of PwC as the Bank's independent registered public accounting firm for 2022.

The Audit Committee annually reviews its written charter and practices, and has determined that its charter and practices are consistent with the applicable FHFA regulations and the provisions of the Sarbanes-Oxley Act of 2002.

Among other matters, the Audit Committee also:

- reviewed the scope of and overall plans for the external and internal audit program;
- discussed with management and independent auditor the Bank's processes for risk assessment and risk management;
- discussed with management and the independent auditor significant matters, including Critical Audit Matters, if any, arising during the audit and other areas of significant judgment or estimation in preparing the financial statements;
- reviewed and challenged management and the independent auditor, as necessary, on new or changed accounting policy and policy alternatives;
- reviewed and challenged management and the independent auditor, as necessary, on how they have established materiality thresholds for establishing the controls over financial reporting and their audit process;
- discussed with management the use of any non-GAAP measures in the financial statements;
- reviewed and approved the Bank's policy with regard to the hiring of former employees of the independent auditor;
- reviewed and approved the Bank's policy for the pre-approval of audit and permitted non-audit services by the independent auditor;
- received reports pursuant to the Bank's policy for the submission and confidential treatment of communications from employees and others about accounting, internal controls and auditing matters;



(Dollars in tables in millions except per share amounts unless otherwise indicated)

- reviewed with management the scope and effectiveness of the Bank's disclosure controls and procedures, including for purposes of evaluating the accuracy and fair presentation of the Bank's financial statements in connection with certifications made by the Bank's President and Chief Financial Officer; and
- reviewed significant legal developments and the Bank's processes for monitoring compliance with law and Bank policies.

The Audit Committee has established procedures for the receipt, retention and treatment, on a confidential basis, of any complaints we receive. The Bank encourages employees and third party individuals and organizations to report concerns about the Bank's accounting controls, auditing matters or anything else that appears to involve financial or other wrongdoing.

Management has the primary responsibility for the preparation and integrity of the Bank's financial statements, accounting and financial reporting principles, and internal controls and procedures designed to assure compliance with accounting standards and applicable laws and regulations. The Bank's independent auditor, PwC, is responsible for performing an independent audit of the Bank's financial statements and of the effectiveness of internal control over financial reporting in accordance with the standards of the PCAOB (United States) and, with respect to the financial statements, the standards applicable to financial audits contained in Government Auditing Standards, issued by the Comptroller General of the United States. The internal auditors are responsible for preparing an annual audit plan and conducting internal audits under the control of the General Auditor, who reports to the Audit Committee. The Audit Committee's responsibility is to monitor and oversee these processes. The Audit Committee met 10 times during 2021, and has regular executive sessions with both internal and independent auditors.

In this context, prior to their issuance, the Audit Committee reviewed and discussed the quarterly and annual earnings releases, financial statements (including the presentation of non-GAAP financial information) and disclosures under "Management's Discussion and Analysis of Financial Condition and Results of Operations" (including significant accounting policies and judgments) with management, the Bank's internal auditors and PwC. The Audit Committee also reviewed the Bank's policies and practices with respect to financial risk assessment, as well as its processes and practices with respect to enterprise risk assessment and management. The Audit Committee discussed with PwC matters required to be discussed by the applicable requirements of the PCAOB. The Audit Committee has also received the written disclosures and the letter from PwC required by the applicable requirements of the PCAOB regarding PwC's communications with the Audit Committee concerning independence, and has discussed with PwC its independence [Item 407(d)(3) of Reg. S-X]. The Audit Committee met with PwC and with the Bank's internal auditors, in each case, with and without other members of management present, to discuss the results of their respective examinations, the evaluations of the Bank's internal controls and the overall quality and integrity of the Bank's financial reporting. Management represented to the Audit Committee that the Bank's financial statements were prepared in accordance with accounting principles generally accepted in the United States of America.

Based on the reviews and discussions with management, the internal auditors, and PwC, as well as the review of the representations of management and PwC's report, the Audit Committee recommended to the Board of Directors, and the Board of Directors has approved, to include the audited financial statements in the Bank's Annual Report on Form 10-K for the year ended December 31, 2021, for filing with the Securities and Exchange Commission.

As of the date of filing for this Annual Report on Form 10-K, the members of the Audit Committee are:

Lois A. Scott, Chairperson
Joseph Fazio III, Vice Chairperson
Mary J. Cahillane
James H. Hegenbarth
David J. Loundy
Daniel G. Watts
James T. Ashworth, (ex officio)



(Dollars in tables in millions except per share amounts unless otherwise indicated)

Executive Officers of the Registrant

The following table provides certain information regarding our executive officers as of February 28, 2022:

Executive Officer	Age	Capacity in Which Served	Employee of the Bank Since
Michael A. Ericson	50	President and Chief Executive Officer	2005
Kim Cullotta	52	Executive Vice President, Group Head, People, Culture, and Communications	2011
Virxhini Gjonzeneli	40	Executive Vice President, Group Head, Member Support and Strategy	2003
Thomas H.W. Harper ^a	56	Executive Vice President, General Auditor	2005
Carolyn Jaw	39	Executive Vice President, Group Head, Sales, Strategy, and Solutions	2004
Michelle Jonson	48	Executive Vice President and Chief Risk Officer	2000
Roger D. Lundstrom	61	Executive Vice President and Chief Financial Officer	1984
Samuel J. Nicita	61	Executive Vice President and Chief Information Officer	2008
John Stocchetti	65	Executive Vice President, Group Head, Mortgage Partnership Finance Program	2006
Cedric D. Thurman	57	Executive Vice President, Group Head, Community Investments and Diversity and Inclusion	2018
Laura M. Turnquest	57	Executive Vice President, General Counsel and Corporate Secretary	2004

^a Although Mr. Harper is a non-voting member of the Bank's Executive Team, he is not considered an "executive officer" as defined in Rule 3b-7 of the Securities Exchange Act of 1934 because he is not in charge of a principal business unit, division or function, nor does he perform a similar policy making function.

Michael A. Ericson became President and Chief Executive Officer of the Bank on January 1, 2021. Prior to that, Mr. Ericson held the following positions at the Bank: Executive Vice President and Chief Operating Officer during 2020, Executive Vice President and Group Head, Members and Markets from 2014 to 2020, Executive Vice President and Chief Risk Officer from December 2008 to 2014, Senior Vice President and Chief Risk Officer from July 2008 to December 2008, and Senior Vice President of Accounting Policy and SEC Reporting from January 2005 to July 2008. Prior to joining the Bank, Mr. Ericson was Vice President, Accounting Policy at Bank One before the merger with JPMorgan Chase and became Global Treasury Controller at JPMorgan Chase subsequent to the merger from 2003 to 2004. Mr. Ericson was Senior Manager with PricewaterhouseCoopers LLP in the Financial Services Group from 1994 to 2003. Mr. Ericson currently serves on the Board of Directors of the Pentegra Defined Benefit Plan for Financial Institutions and the FHLBs' Office of Finance, and as a member of the Directorate of the Resolution Funding Corporation.

Kim Cullotta joined the Bank's Executive Team in November 2017, and became Senior Vice President and Group Head, Human Resources (now People, Culture, and Communications) in January 2018 and Executive Vice President in January 2021. Ms. Cullotta started with the Bank in 2011, and has served as Senior Vice President, Member Product Support and Senior Vice President, Information Technology. Ms. Cullotta has over 20 years of management experience in diverse financial services institutions, including: Director, Finance at Infinium Capital Management, LLC from 2010 to 2011, Financial Controller/ Compliance Officer at Fox River Securities, LLC from 2007 to 2010 (which was acquired by Infinium), Financial Management & Reporting Director at Ritchie Capital Management, LLC from 2002 to 2007, and Vice President, Finance-Global Markets Group Planning & Reporting at Bank of America from 1996 to 2002.

Virxhini Gjonzeneli became Senior Vice President and Group Head, Strategic Initiatives (now Member Support and Strategy) of the Bank in November 2017, and Executive Vice President in January 2021. Prior to that, she was Senior Vice President, Director of Enterprise Risk Management since 2015. Ms. Gjonzeneli joined the Bank in 2003, and from 2007 to 2015 held positions of increasing levels of responsibilities within the Bank's Credit group, including Assistant Vice President, Senior Markets Credit Analyst and Vice President, Manager of Markets Credit Analysis. Ms. Gjonzeneli received her MBA from the University of Chicago Booth School of Business and her undergraduate degree from Northwestern University. She received her CFA charter designation in 2008.

Thomas H. W. Harper became General Auditor of the Bank in 2006 and Executive Vice President in January 2011. Prior to that, Mr. Harper was Senior Vice President, Audit Director from 2005 to 2006. Prior to joining the Bank, Mr. Harper was First Vice President, Senior Audit Manager with JPMorgan Chase and Co. as well as Bank One, NA, First National Bank of Chicago and



(Dollars in tables in millions except per share amounts unless otherwise indicated)

Barclays de Zoete Wedd. Mr. Harper was responsible for the internal audit of Technology, Commercial and Investment Bank, Treasury Services and Corporate areas in the United States, United Kingdom and other Asia-Pacific. Mr. Harper was an auditor Banking and Financial Services with KPMG in London, U.K., from 1987 to 1992. Mr. Harper is a Fellow of the Institute of Chartered Accountants (England and Wales), a Certified Financial Services Auditor, and a Certified Internal Auditor.

Carolyn Jaw joined the Bank's Executive Team in January 2020, and became Senior Vice President and Group Head, Sales, Strategy, and Solutions. She became Executive Vice President in January 2021. From 2015 to 2019, Ms. Jaw was Senior Vice President and Managing Director, Institutional Sales, and most recently had responsibility over institutional sales, marketing, and events. Ms. Jaw has worked in various groups at the Bank since 2004, including the sales, capital markets, and mortgage groups. Previously, Ms. Jaw worked at Hillenbrand Capital Partners, a structured products investment fund, where she focused on pricing, funding, and hedging the residential and commercial mortgage loan and securities portfolios. Ms. Jaw holds a Bachelor of Arts degree in Economics and International Studies from Northwestern University and a Master of Business Administration degree with concentrations in Finance, Economics, Accounting, and Entrepreneurship from the University of Chicago, Booth School of Business.

Michelle Jonson became Executive Vice President, Chief Risk Officer of the Bank in July 2014. Prior to that, she was Senior Vice President and Co-Head of the Members and Markets Group since May 2014. Previously, Ms. Jonson served as Managing Director of the sales, member support, and member marketing relations functions since 2011. In 2000, Ms. Jonson joined the Bank and has managed responsibilities around pricing, funding, and hedging of advances and MPF, and developing operational risk strategies for the Members and Markets Group. Prior to joining the Bank, Ms. Jonson worked as an Investment Analyst for Aon Advisors. She received her CFA charter designation in 2008.

Roger D. Lundstrom has been Chief Financial Officer of the Bank since October 2008 and Executive Vice President and Group Head, Financial Information (now Financial Accounting and Markets) since 2003. Mr. Lundstrom was Senior Vice President, Financial Information of the Bank from 1997 to 2003 and Senior Vice President, Financial Reporting and Analysis of the Bank from 1992 to 1997. Mr. Lundstrom held various positions with the Bank in analysis and reporting functions with increasing levels of responsibility from 1984 to 1992.

Samuel J. Nicita became Executive Vice President and Chief Information Officer of the Bank in January 2016. Prior to that, he was Executive Vice President and Group Head, Community Investment and Member Products Support of the Bank from 2014 to 2015, Senior Vice President and Group Head, Community Investment of the Bank from 2012 to 2014, Community Investment Officer of the Bank from 2011 to 2012, Senior Vice President, Manager Premier Group/Middle Office of the Bank from 2010 to 2011 and Vice President, Manager Premier Group/Middle Office of the Bank from 2008 to 2010. Prior to joining the Bank, Mr. Nicita was Chief Operating Officer of Highview Capital Management from 2006 to 2008, Director of Operations of Ritchie Capital Management from 2001 to 2006 and held various positions with Chicago Research and Trade (which was acquired by Nations Bank, and later merged with Bank of America) from 1990 to 2001.

John Stocchetti has been with the Bank since 2006 and is currently Executive Vice President and Group Head, Mortgage Partnership Finance Program (MPF), a responsibility he assumed in January 2014. From May 2008 to January 2014, Mr. Stocchetti was Executive Vice President and Group Head, Products and Operations (formerly Products, Operations, and Technology), where he led a number of initiatives to upgrade, re-organize, and re-engineer the Bank's operations and technology. Mr. Stocchetti served as Senior Vice President, Project Premier Director of the Bank from 2006 to 2008, where he led the effort to implement an enterprise-wide systems platform that is now the Bank's main operating platform. Prior to joining the Bank, Mr. Stocchetti served in several positions from 2004 to 2006, including Chief Financial Officer, at Ritchie Capital Management, LLC, a multi-strategy hedge fund. Previously, Mr. Stocchetti served in various capacities from 1997 to 2004, including CEO, with Learning Insights, Inc., an e-learning internet company. From 1995 to 1997, Mr. Stocchetti was a Senior Vice President with NationsBank where he was the head of interest rate derivatives operations on a global basis and the Chief Operating Officer of NationsBank Financial Products, a AAA-rated derivatives company. From 1978 to 1995, Mr. Stocchetti was with Continental Bank in Chicago, IL where he held various positions, the latest of which was as a Managing Director of Derivative Products. Mr. Stocchetti holds a Masters of Business Administration from the University of Chicago and earned a Bachelor of Science in economics from the University of Illinois at Chicago. Mr. Stocchetti served as an adjunct professor at the Illinois Institute of Technology where he taught classes for six years in the graduate level Financial Markets and Trading program.

Cedric D. Thurman joined the Bank in the newly created position of Senior Vice President & Chief Diversity Officer in September 2018. Since January 2020, Mr. Thurman serves as Senior Vice President and Group Head, Community Investments and Diversity and Inclusion. He became Executive Vice President in January 2021. In his role as Chief Diversity Officer, Mr. Thurman is responsible for shaping the Bank's culture to provide opportunities for all employees and help the Bank be a catalyst for change for its member institutions and the communities they serve. In his role leading Community Investments, Mr. Thurman is responsible for oversight of the Bank's products, programs and awards to support its member institutions' affordable housing and community lending initiatives. From 2014 to 2017, Mr. Thurman served as U.S. Head of Inclusion at BMO Harris Bank. In this role, Mr. Thurman was responsible for the diversity and inclusion strategy for the U.S. while overseeing BMO's Enterprise



FHLBank
Chicago Federal Home Loan Bank of Chicago

(Dollars in tables in millions except per share amounts unless otherwise indicated)

Resource Groups in the U.S. and Canada, as well as compliance related activities. Mr. Thurman began his career at BMO Harris, spending nearly 10 years in a variety of roles from International Trade Finance, Community Development Lending, and Branch Management and Development from 1987 to 1996. Prior to re-joining BMO Harris, Mr. Thurman spent 14 years at JLL in office and retail brokerage capacities, as well as leading HR strategy for the Americas region. He also served as JLL's first Chief Diversity Officer. Mr. Thurman is very active in Chicago's civic community. He currently serves on the Governing Board of UCAN; Central Division Board member for Junior Achievement of Chicago; University of Illinois Gies College of Business Dean's Business Council; Board of Directors, University of Illinois Alumni Association; member of the President's Council for the Museum of Science and Industry; and Commissioner, Illinois Attorney Registration and Disciplinary Commission of the Supreme Court of Illinois. Mr. Thurman holds an MBA in Management Strategy and Marketing from the Kellogg School of Management of Northwestern University and a BS in Finance from the University of Illinois, Urbana-Champaign.

Laura M. Turnquest became Executive Vice President, General Counsel and Corporate Secretary of the Bank in August 2016. Prior to that Ms. Turnquest was: Senior Vice President, Deputy General Counsel from 2007 to August 2016; Vice President, Deputy General Counsel from 2006 to 2007; and Assistant Vice President, Assistant General Counsel from 2004 to 2006. Prior to joining the Bank, Ms. Turnquest was an associate in the Banking and Finance practice at Mayer Brown LLP from 1997 to 2004.

There are no family relationships among the above executive officers or our directors.

We have adopted a code of ethics for all of our employees and directors, including our President and CEO, principal financial officer, and those individuals who perform similar functions. A copy of the code of ethics is published on our internet website and may be accessed at: <https://www.fhlbc.com/docs/default-source/about-us-pdfs/code-of-ethics.pdf>.

We intend to disclose on our website any amendments to, or waivers of, the Code of Ethics covering our President, CEO, principal financial officer, and those individuals who perform similar functions. The information contained in or connected to our website is not incorporated by reference into this annual report on Form 10-K and should not be considered part of this or any report filed with the SEC.



(All dollar amounts within this Item 11 Executive Compensation are in whole dollars unless otherwise specified)

Item 11. Executive Compensation.

This section provides information regarding our compensation program for our 2021 named executive officers (NEOs): Michael A. Ericson, President and CEO; Roger D. Lundstrom, Executive Vice President & Chief Financial Officer; Michelle Jonson, Executive Vice President & Chief Risk Officer; John Stocchetti, Executive Vice President & Group Head, Mortgage Partnership Finance Program; and Laura M. Turnquest, Executive Vice President, General Counsel & Corporate Secretary.

Compensation Discussion & Analysis

Compensation Program Objectives and Philosophy

Our Human Resources & Compensation Committee (the HR&C Committee) is responsible for, among other things, reviewing and making recommendations to the full Board of Directors regarding compensation and incentive plan awards for the Bank's President and CEO and assisting the Board in matters pertaining to the employment and compensation of other executive officers, our employment and benefits programs in general, and overseeing a risk assessment of our compensation policies and practices for all employees. The HR&C Committee may rely on the assistance, advice, and recommendations of the Bank's management and other advisors and may refer specific matters to other committees of the Board.

The goal of our compensation program is to set compensation at a level which allows us to attract, motivate, and retain talented executives who can enhance our business performance and help us fulfill our mission. Our compensation program is designed to reward:

- Individual performance and attainment of Bank-wide requirements and goals and business strategies on both a short-term and long-term basis;
- Fulfillment of our mission;
- Effective and appropriate management of risks, including financial, operational, market, credit, legal, regulatory, and other risks; and
- The growth and enhancement of executive leadership.

Our current compensation program is comprised of a combination of base salary, short-term incentive compensation, long-term incentive compensation, retirement, severance, and other benefits which reflect total compensation that is consistent with individual performance, business results, job responsibility levels, and the competitive market. Because we are a cooperative and our capital stock generally may be held only by members, we are unable to provide compensation to executives in the form of stock or stock options, which is typical in the financial services industry.

Regulatory Oversight of Executive Compensation

The FHFA provides certain oversight of FHLB executive officer compensation. Under the Federal Housing Enterprises Financial Safety and Soundness Act of 1992, as amended, the FHFA Director must prohibit an FHLB from paying compensation to its executive officers that is not reasonable and comparable to that paid for employment in similar businesses involving similar duties and responsibilities. In connection with this responsibility, the FHFA has directed the FHLBs to submit all compensation actions involving named executive officers to the FHFA for prior review.

The FHFA has issued a rule setting forth requirements and processes with respect to compensation provided to executive officers by FHLBs. The rule addresses the authority of the FHFA Director to: 1) approve named executive officer agreements that provide for compensation in connection with termination of employment and 2) review the compensation arrangements of named executive officers of the FHLBs and to prohibit an FHLB from providing compensation to any named executive officer that the Director determines is not reasonable and comparable with compensation for employment in other similar businesses involving similar duties and responsibilities.

The FHFA has also issued an advisory bulletin establishing certain principles for executive compensation at the FHLBs and the Office of Finance. These principles include that: (1) such compensation must be reasonable and comparable to that offered to executives in similar positions at comparable financial institutions; (2) such compensation should be consistent with sound risk management and preservation of the par value of FHLB stock; (3) a significant percentage of an executive's incentive-based compensation should be tied to longer-term performance and outcome-indicators and be deferred and made contingent upon



(All dollar amounts within this Item 11 Executive Compensation are in whole dollars unless otherwise specified)

performance over several years; and (4) the FHLB's Board of Directors should promote accountability and transparency in the process of setting compensation. In 2020, the FHFA provided the FHLBs further guidance to supplement these principles and to clarify its expectations regarding certain statutory and regulatory provisions relevant to executive compensation. Under the Housing and Economic Recovery Act of 2008, the FHFA Director has the right to prohibit or limit golden parachute payments under certain conditions as described in **Severance Arrangements** on page 109.

The HR&C Committee has established a risk review framework in connection with its review and approval of incentive compensation plan requirements and goals, risks, and payouts. Under the framework, our Chief Risk Officer delivered a risk analysis report to our Operations and Technology Committee and the Risk Management Committee of the Board of Directors evaluating certain risk principles against the requirements and goals, risks, and payouts associated with our short-term, deferred and long-term incentive compensation plans, and evaluating whether our compensation policies and practices create risks that are reasonably likely to have a material adverse effect on the Bank. The HR&C Committee reviewed the report, along with base salary information and consultant studies (as further described below), and determined that the compensation payable to our executive officers for 2021 and 2022 was and is reasonable and comparable to that paid within the FHLB System and complies with the FHFA guidance.

Use of Compensation Consultants and Surveys

It is the intent of the HR&C Committee to set overall compensation packages at competitive market levels. In order to evaluate and maintain our desired market compensation position, the HR&C Committee reviews comparable market compensation information. We participated in the 2020 Federal Home Loan Bank System Key Position Compensation Survey. This survey, conducted by Kathy Reimer Compensation Consulting, outlines executive and non-executive compensation information for various positions across all 11 FHLBs.

We also engaged McLagan Partners, a compensation consulting firm, to conduct the McLagan Executive Compensation Benchmarking Survey, a broad-based compensation survey for 2020 that includes market statistics on salary, annual incentives, total cash, long-term/deferred awards, and total compensation. The survey compared executive officer compensation against three peer groups: (1) commercial banks (excluding certain large investment banks), (2) other FHLBs, and (3) named executive officers from publicly traded financial institutions with \$10 billion to \$20 billion in assets. McLagan reviewed the data collection and results with our Human Resources senior management so that we may understand the appropriateness of the survey comparisons adjusting for scale and scope of the survey position versus the other survey participants. Our Human Resources senior management reviews the surveys with our HR&C Committee.

The information obtained from the 2020 Federal Home Loan Bank System Key Position Survey and the 2020 McLagan Executive Compensation Benchmarking Survey (together, Compensation Surveys) was considered by the Board of Directors, the HR&C Committee, and our President and CEO, as appropriate, when making compensation decisions for 2021.

Elements of Our Compensation Program

On an annual basis, the HR&C Committee reviews the components of our NEO compensation: salary, short- and long-term/deferred incentive compensation, matching bank contributions, severance benefits, and projected payments under our retirement plans.

Base salary is included in our NEO compensation package because the HR&C Committee believes it is appropriate that a portion of the compensation be in a form that is fixed and liquid. We use the base salary element to provide the foundation of a fair and competitive compensation opportunity for each of our executive officers. We generally do not provide perquisites to our executives as part of our compensation program, and during 2021 none of our executives received perquisites in excess of \$10,000 in annual value.

Performance-based compensation is split between our short-term and long-term/deferred cash incentive award opportunities, providing incentive for our NEOs to pursue particular business objectives consistent with the overall business strategies and risk management criteria set by our Board of Directors. The plans for our NEOs, although designed to reward both overall Bank performance and individual performance, are heavily weighted toward overall Bank performance.

In determining executive compensation, we have not had to consider federal income tax effects on the Bank because, by statute, we are exempt from federal income taxation.



(All dollar amounts within this Item 11 Executive Compensation are in whole dollars unless otherwise specified)

Employment Agreements

All of our NEOs (other than the President and CEO) are at-will employees of the Bank.

The Bank entered into an employment agreement with Mr. Ericson effective January 1, 2021 (the Employment Agreement). The Employment Agreement provides for a four-year employment term ending December 31, 2024, unless terminated earlier as provided for in the agreement. The Employment Agreement provides for automatic one-year extensions until such date as the Board of Directors or Mr. Ericson elects not to renew the agreement.

The Employment Agreement provides for an initial base salary of \$850,000 effective January 1, 2021, which our Board of Directors determined was appropriate based upon market and peer compensation information after considering the overall competitive market data from the Compensation Surveys, including the base salaries paid to other longer-tenured FHLB presidents. The HR&C Committee reviews Mr. Ericson's performance annually and in its discretion may recommend an increase in salary to the Board of Directors for approval.

The Employment Agreement allows Mr. Ericson to participate in the Bank's President and Executive Team Incentive Compensation Plan (as amended to date, the Incentive Plan). In addition, Mr. Ericson is entitled to participate in our health insurance, life insurance, retirement, and other benefit plans that are generally applicable to our other senior executives. Under the Employment Agreement, Mr. Ericson is responsible for the payment of all federal, state and local income and other taxes that may be due with respect to any payments made to him pursuant to the Employment Agreement, although if any provision of the Employment Agreement would cause Mr. Ericson to incur any additional tax or interest under Section 409A of the Code, then the Bank may reform such provision provided that it maintains (to the maximum extent practicable), the original intent of the applicable provision.

For a description of Mr. Ericson's post-termination compensation payable under the Employment Agreement, see **Severance Arrangements** on page 109.

Base Salary

Base salary is a key component of our compensation program. In making base salary determinations, the HR&C Committee and, with respect to making compensation recommendations for the other executive officers, the President and CEO, review competitive market data from the Compensation Surveys and consider factors such as prior related work experience, individual job performance, and the position's scope of duties and responsibilities within our organizational structure and hierarchy.

The Board of Directors determines base salary for the President and CEO after it has received a recommendation from the HR&C Committee; it set Mr. Ericson's base salary at \$850,000 for 2021 as described above.

On an annual basis, the President and CEO reviews the performance of the other NEOs and makes salary recommendations to the HR&C Committee. In setting base salaries for 2021, Mr. Ericson and the HR&C Committee generally considered competitive market data from the Compensation Surveys and individual performance, including the attainment of personal goals. The HR&C Committee and Mr. Ericson determined that the compensation guideline for base salaries for NEOs (other than the President and CEO) should generally target the 75th percentile of the base salaries paid to senior executives serving in similar positions at the other FHLBs. Due to the complex nature and operations of the Bank relative to the other FHLBs and the importance of retaining key members of the executive management team, and the tenure of our NEOs, salaries for certain NEOs may be targeted above the 75th percentile.

After considering the factors discussed above in light of the economic disruptions and uncertainties resulting from the COVID-19 pandemic, 2021 base salaries for NEOs other than Mr. Ericson remained the same relative to their 2020 base salaries. The 2021 base salaries for these NEOs were as follows: Mr. Lundstrom - \$491,310; Mr. Stocchetti - \$641,690; Ms. Jonson - \$446,505; and Ms. Turnquest - \$438,780.

President and Executive Team Incentive Compensation Plan

Since 2013 our NEOs have participated in the Incentive Plan, which is a cash-based annual incentive plan with a deferral component that establishes individual incentive award opportunities related to achievement of performance objectives by the Bank and by participants during performance periods. The Incentive Plan provides the Bank's Executive Team, including our NEOs, the opportunity to earn incentive compensation awards based on the Bank's achievement of certain financial and performance requirements established by the Board (the Performance Requirements).

The Incentive Plan establishes two performance periods. Incentive Plan participants may earn an annual award following a one-



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year performance period (an Annual Award) and may receive a deferred award following a three-year deferral period (a Deferred Award). For each performance period, the Board will present an opportunity to Incentive Plan participants to earn a total award (an Incentive Award), which is composed of the Annual Award and the Deferred Award, equal to a percentage of each Incentive Plan participant's annual base salary at the end of the performance period for the Annual Award. After the end of a performance period, the Board will determine the total Incentive Award of the President and CEO, and the HR&C Committee will determine the total Incentive Award of each other Incentive Plan participant, based on the achievement of the Performance Requirements at a "minimum", "target", or "maximum" level. As approved by the Board (for the President and CEO) and HR&C Committee (for the other NEOs) for the 2021 - 2024 performance period, the Incentive Award may range from 40% to 80% of base salary for NEOs other than the President and CEO and from 60% to 100% of base salary for the President and CEO. The HR&C Committee has the discretion to award amounts that fall between these ranges based on an interpolation of the performance results. The Annual Award will be equal to 50% of the Incentive Award and the Deferred Award will be equal to 50% of the Incentive Award (subject to adjustment based upon achievement of certain Performance Requirements) and will be deferred during the three-year deferral period. The HR&C Committee (or the Board in the case of the President and CEO) may in its discretion increase the Incentive Award of an individual Incentive Plan participant to account for such participant's performance that is not captured in the Performance Requirements applicable to such individual.

In determining the Performance Requirements under the Incentive Plan, the HR&C Committee strives to:

- (1) balance risk and financial results in a manner that does not encourage participants to expose the Bank to imprudent risks;
- (2) make such determination in a manner designed to ensure that participants' overall compensation is balanced and not excessive in amount and that the awards are consistent with the Bank's policies and procedures regarding such compensation arrangements; and
- (3) monitor the success of the Performance Requirements and weighting established in prior years, alone and in combination with other incentive compensation awarded to the same participants, and make appropriate adjustments in future calendar years as needed so that payments appropriately incentivize participants and reflect risk.

Performance Requirements for Annual Awards

The Incentive Award opportunity for each performance period will be based on Performance Requirements established annually by the Board (for the President and CEO) and HR&C Committee (for the other Incentive Plan participants). The Incentive Plan provides that the HR&C Committee and the Board will establish separate Performance Requirements for Annual Awards and Deferred Awards. Performance Requirements for Deferred Awards will apply during the deferral period and assessment of the achievement of Performance Requirements will be determined at the end of each deferral period.



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The Performance Requirements for the 2021 Annual Awards and applicable weighting for each requirement are as follows:

	Performance Requirements	Weighting for NEOs other than CRO	Weighting for Chief Risk Officer (CRO)
A	Adjusted annual GAAP net income as compared to the Bank’s operating plan at 12/31/2021. Adjusted net income means annual GAAP net income adjusted by: 1) subtracting total 2021 advance prepayment fees net of related hedge costs adjusted only to exclude net amounts that would have occurred after 2021 had there been no prepayment; 2) subtracting total 2021 prepayment fees on DUS bonds net of related hedge costs and net of interest planned in 2021; 3) subtracting product of (a) monthly change in average 3-month LIBOR from the Bank’s operating plan average and (b) average plan total capital; 4) adding amortization in 2021 of any expense for cap and floor purchases by the Bank to flatten income profile and reducing it by any payments received on the cap and floors; 5) subtracting the gain on Bank OTTI settlements net of associated legal costs; 6) removal of hedge ineffectiveness; and 7) adjusting for any other material, unusual events.	10.00%	7.50%
B	Selected Bank operating expenses compared to amounts budgeted. (Excluded expenses include amortization/depreciation, Community Investment voluntary programs, and MPF master servicing/custody and external quality control expenses.)	10.00%	10.00%
C	Annual economic performance of the MPF Provider using the economic method for amortizing fee income compared to the 2021 Bank MPF Provider forecasted economic performance. For purposes of this measure, the expense calculation for all incentive payments will be capped at target for both the goal and actual performance.	10.00%	10.00%
D	As of 12/31/21, the year to date average advances outstanding to all members (including housing associates). For purposes of this measurement, advances to captive insurance companies whose membership terminated in 2021 and COVID-19 relief advances are not included.	20.00%	15.00%
E	As of 12/31/21, the annual percentage increase in the year to date average advances outstanding to all members and housing associates under the Community Financial Institution asset threshold. COVID-19 relief advances are not included.	5.00%	5.00%
F	The percentage of members (including housing associates) who used at least one Bank core product: advances, letters of credit, MPF products (on or off-balance sheet), or Community Investment Program (AHP and DPP) grants in 2021.	5.00%	5.00%
G	The Bank to: 1) create a staffing structure and methodology for a multi-year project to evaluate all critical Bank processes; 2) inventory all Bank critical processes as defined by the methodology; 3) set roadmaps for process changes based on the evaluations of all processes; and 4) ensure all new significant investment decisions align with the strategic vision.	15.00%	17.50%
H	Consistently create a diverse slate of qualified candidates by interviewing a diverse slate of qualified candidates for a percentage of externally posted open positions.	5.00%	5.00%
I	Create a cross-functional working group that will develop and implement a 3-year curriculum across the Bank to effectively manage a blended workforce. This includes: 1) selecting a diverse, cross-functional team; 2) creating an organization-wide needs assessment; 3) developing a 3-year framework; and 4) rolling out two courses by year end 2021.	5.00%	7.50%
J	Create and implement productivity metrics and measurements by 1) identifying best practices to define and measure productivity; 2) defining what productivity means for the Bank and how to measure it; and 3) establishing an outline for each Bank team to implement these measures.	5.00%	5.00%
K	Employee participation in Diversity, Equity, and Inclusion activities and engagement with colleagues.	10.00%	12.50%



FHLBank Chicago Federal Home Loan Bank of Chicago

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The minimum, target and maximum achievement levels for each Performance Requirement for the 2021 Annual Awards (which awards are reflected in the Summary Compensation Table) along with 2021 results and the actual weighted achievement (as a percentage of base salary) are set forth in the following table:

Requirement	Minimum	Target	Maximum	2021 Results	Actual Weighted Incentive Award as % of Salary for		
					President ^a	Chief Risk Officer ^b	All Other NEOs ^b
A	\$(15) million	\$0	\$10 million	\$90.80 million	10.00%	6.00%	8.00%
B	0%	-0.75%	-1.50%	-15.80%	10.00%	8.00%	8.00%
C	\$(1.5) million	\$0	\$1.5 million	\$4.30 million	10.00%	8.00%	8.00%
D	\$38.5 billion	\$39.5 billion	\$40.5 billion	\$38.69 billion	12.76%	6.57%	8.76%
E	-5.00%	-2.50%	0%	-2.05%	4.18%	3.18%	3.18%
F	84%	86%	88%	90.30%	5.00%	4.00%	4.00%
G	Complete items 1, 2, and 4 by 12/31/21	Complete items 1, 2, 4 and 50% of item 3 by 12/31/21	Complete items 1, 2, 4 and 75% of item 3 by 12/31/21	Complete items 1, 2, 4 and 75% of item 3 by 12/31/21	15.00%	14.00%	12.00%
H	70%	80%	90%	76.00%	3.60%	2.60%	2.60%
I	Complete items 1 and 2 by 12/31/21	Complete items 1, 2 and all of 3 by 12/31/21	Complete items 1, 2, all of 3, and 4 by 12/31/2021	Complete items 1, 2, all of 3, and 4 by 12/31/2021	5.00%	6.00%	4.00%
J	Complete 1 item by 12/31/21	Complete 2 items by 12/31/21	Complete 3 items by 12/31/21	Complete 3 items by 12/31/21	5.00%	4.00%	4.00%
K	75% engage in 1 activity with 1 engagement	75% engage in 1 activity with 2 engagements, or 2 activities with an engagement for each activity	90% engage in 1 activity with 2 engagements, or 2 activities with an engagement for each activity	94.50% engage in 1 activity with 2 engagements, or 2 activities with an engagement for each activity	10.00%	10.00%	8.00%
Total Actual Incentive Award as a % of Salary ^c					90.54% ^d	72.35%	70.54% ^d

^a The percentages shown above represent the actual achievement which equates to an opportunity percentage ranging from 60% to 100% of base salary for the President and CEO (which includes interpolated amounts where performance fell between the achievement levels), multiplied by the applicable weighting for each requirement.

^b The percentages shown above represent the actual achievement which equates to an opportunity percentage ranging from 40% to 80% of base salary for NEOs other than the President and CEO (which includes interpolated amounts where performance fell between the achievement levels), multiplied by the applicable weighting for each requirement.

^c 50% of the Incentive Award achieved is the Annual Award, which is payable at the end of 2021, and 50% of the Incentive Award is the Deferred Award, which is payable at the end of the 2022-2024 deferral period.

^d The Board began with an award opportunity of 90.54% for Mr. Ericson. After considering Mr. Ericson's individual performance, the Board increased the Incentive Award to 100% of his base salary. The HR&C Committee began with an opportunity of 70.54% for all other the NEOs other than Ms. Jonson. After considering each of Mr. Lundstrom's, Ms. Turnquest's, and Mr. Stocchetti's individual performances, the HR&C Committee increased the Incentive Award for Mr. Lundstrom to 72.37% of his base salary, for Ms. Turnquest to 72.36% of her base salary, and for Mr. Stocchetti to 75.22% of his base salary.



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Performance Requirements for Deferred Awards

2019-2021 Deferred Award (Earned for 2021)

The performance results and weighted achievement for the 2019-2021 Deferred Award (as a percentage of the initial deferred portion of the Incentive Award achieved for the 2018-2021 performance period) are set forth in the following table. This Deferred Award was earned in 2021 and is reflected in the Summary Compensation Table.

2019 - 2021 Performance Requirement Results	Actual Weighted Deferred Award as % of Deferred Award^a
Ratio of the market value of equity to par value of the Bank's capital stock as of 12/31/21 is 307%.	41.67%
Maintained the three minimum regulatory capital ratios at each month end through 12/31/21.	41.67%
Maintained positive annual net income for 2019, 2020, and 2021.	41.66%
Deferred Award as a % of the Initial Deferred Portion of the Incentive Award Achieved for the 2018-2020 Performance Period ^b	125.00%

^a The percentages shown above represent the actual achievement which equates to an opportunity percentage ranging from 75% to 125% of the initial deferred portion of the Incentive Award achieved for the 2018-2021 performance period (which includes interpolated amounts where performance fell between the achievement levels), multiplied by the applicable weighting for each requirement. All conditions for payment of the 2019-2021 Deferred Award were satisfied and the maximum levels were achieved for each Performance Requirement.

^b The 2019-2021 Deferred Award is part of the Incentive Award achieved for the 2018-2021 performance period. 50% of the Incentive Award achieved is the Annual Award, which was earned in 2018, 50% of the Incentive Award achieved is the Deferred Award, which is payable following the end of 2021, and reflected in the Summary Compensation Table.

2022-2024 Deferred Award (Part of 2021 Incentive Award)

The minimum, target, and maximum achievement levels for each Performance Requirement for the Deferred Award for the 2022-2024 deferral period along with the applicable weightings for each requirement are set forth in the following table:

	Performance Requirements	Weighting for all NEOs^a	Minimum	Target	Maximum
A	Ratio of the market value of equity to par value of outstanding capital stock as of 12/31/24	33.34%	>100%	>105%	>150%
B	Maintain the three minimum regulatory capital ratios at each month end through 12/31/24	33.33%	At least 104 capital requirements	At least 106 capital requirements	All 108 capital requirements
C	Maintain positive quarterly net income during 2022, 2023 and 2024	33.33%	In 10 of 12 quarters	In 11 of 12 quarters	In all 12 quarters

^a If the composite exam rating remains the same as the level at 12/31/20 or improves during 2022, 2023, or 2024, the Deferred Award paid will be at 100% of applicable weighting for each Performance Requirement above. If the composite exam rating declines during any of 2022, 2023, or 2024 from the level at 12/31/20 then the calculation based on actual achievement of the Performance Requirements for the Deferred Awards will reflect a reduction of 33% in the weightings of each Performance Requirement above.

The HR&C Committee may, in its discretion, reduce or eliminate an Annual Award or a Deferred Award for any applicable performance period under any of the following circumstances: (1) the Bank receives the lowest or second-lowest cumulative rating in its FHFA examination in any calendar year in a particular performance period; (2) the Board determines that a material safety and soundness problem has occurred, or a material risk management deficiency exists at the Bank, or if (a) operational errors or omissions result in material revisions to the Bank's financial results, information submitted to the FHFA, or to data used to determine Incentive Awards, (b) submission of material information to the Securities and Exchange Commission, the Office of Finance, or the FHFA is materially beyond any deadline or applicable grace period, or (c) the Bank fails to make sufficient progress, as determined by the Board, in the timely remediation of significant examination, monitoring, or other supervisory findings; (3) a Deferred Award may be reduced for each year during the deferral period in which the Bank has negative net income; or (4) with respect to an individual Incentive Plan participant only, (a) such Incentive Plan participant receives an unsatisfactory job performance appraisal, either during a performance period or at the scheduled time of an Incentive Award payout, (b) such Incentive Plan participant becomes subject to any disciplinary action at the scheduled time of an Incentive



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Award payout, or (c) such Incentive Plan participant fails to comply with regulatory requirements or standards, internal control standards, the standards of his or her profession, any internal Bank standard, or fails to perform responsibilities assigned to such Incentive Plan participant under the Bank's strategic business plan. The amount of the Deferred Award may increase or decrease based on the level of achievement of the Performance Requirements during the deferral period. For the 2021 - 2024 performance period, the amount of the Deferred Award as approved by the Board for each participant can range from 75% to 125% of the initial deferred portion of the Incentive Award as determined at the end of the initial performance period. The HR&C Committee has the discretion to award amounts that fall between these ranges based on an interpolation of the performance results.

Incentive Plan participants are paid their respective Incentive Awards, if any, in cash following the initial and deferred performance periods, provided that they are actively employed by the Bank at the end of the performance period. If a participant dies, becomes disabled, retires, terminates employment for good reason or a change of control occurs, the participant is eligible to receive, unless (s)he participates in any activity constituting cause, (a) a pro-rated incentive award for the current performance period based on how long (s)he was employed with the Bank during the year (excluding any period of disability in excess of three months), and (b) all Deferred Awards previously granted. Incentive Plan participants may elect to defer some or all of an Incentive Award under our Benefit Equalization Plan. For a description of the terms of the Benefit Equalization Plan see **Benefit Equalization Plan** on page 111.

See **President and Executive Team Incentive Compensation Plan** on page 114 for the awards made to the NEOs under this plan.

Post-Termination Compensation

Severance Arrangements

Our NEOs (other than the President and CEO) are eligible to receive severance benefits under our Employee Severance Plan. Under the plan, if an NEO covered by the plan were to be terminated other than for cause or through voluntarily termination of their employment because of a constructive discharge, that NEO would be entitled to receive the greater of: (1) four weeks' base salary for each full year of calendar service, but not to exceed 104 weeks; or (2) one year's base salary, subject to certain limits. In addition, we will make the Bank's portion of the COBRA payments required to continue health insurance benefits for a time period generally equal to the number of weeks of pay such employee is entitled to receive (not to exceed the statutory COBRA continuation period). Payments under the Employee Severance Plan shall be made during the payment period (as defined in such plan) with the regular payroll schedule of the Bank. An NEO's receipt of benefits under the Employee Severance Plan is conditioned on an executed general release waiving all claims against the Bank.

Under the Employment Agreement, in the event Mr. Ericson's employment with the Bank were terminated by him through retirement (as defined in the Employment Agreement), Mr. Ericson would be entitled to receive the following payments and benefits:

1. all accrued and unpaid salary for time worked as of the date of termination;
2. all accrued but unutilized vacation time as of the date of termination;
3. a lump sum payment in an amount equal to the incentive compensation he would have otherwise been entitled to for:
 - a. the total Incentive Award (both Annual Award and Deferred Award) under the Incentive Plan for the year in which termination occurs, calculated as if all performance targets for the current annual and deferral award period had been met at the target award level and prorated based on the number of full months Mr. Ericson was employed during the year of termination, divided by 12, and
 - b. any previously deferred award (50% of the total Incentive Award) under the Incentive Plan not subject to proration or further adjustments based on performance target achievement during the deferral period;

as determined without any regard to whether Mr. Ericson's termination affects his eligibility to receive an Incentive award under the Incentive Plan; provided, however that the HR&C Committee may, in its discretion, reduce or eliminate any incentive compensation amounts paid under this item (3) for any of the circumstances set forth in Section 5.3(b)(1)-(3) or (5) the Incentive Plan, to the extent the circumstances existed at or before the time Mr. Ericson provided notice of termination, as applicable, and

4. participation in the Bank's retiree health care benefit plans for Mr. Ericson and his spouse, in accordance with the terms of the Federal Home Loan Bank of Chicago Description of Retiree Medical Coverage.



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If Mr. Ericson's employment with the Bank is terminated by resignation other than for Good Reason (as described in the Employment Agreement), Mr. Ericson will be entitled to the payments in items (1) through (3) above. If Mr. Ericson's employment with the Bank is terminated by the Board for Cause (as defined in the Employment Agreement), Mr. Ericson will be entitled only to the amounts in items (1) and (2) above. If Mr. Ericson's employment with the Bank is terminated: (a) by reason of death or disability (as defined in the Employment Agreement), (b) by the Bank other than for Cause, (c) by Mr. Ericson by resignation for Good Reason, or (d) by the Bank by non-renewal of the Employment Agreement, Mr. Ericson will be entitled to the payments in items (1) through (3) above, as well as salary continuation (at the base salary in effect at the time of termination) for a period of one year, and continued participation in the Bank's employee health care benefit plans for Mr. Ericson and his spouse, in accordance with the terms of the Bank's severance plan that would be applicable if Mr. Ericson's employment had been terminated pursuant to such plan (provided, however, the Bank shall continue paying the employer's portion of Mr. Ericson's medical and/or dental insurance premiums, if Mr. Ericson had been participating in either or both programs for one year prior to termination.)

The Employment Agreement specifies that the HR&C Committee may in its discretion reduce or eliminate any incentive compensation amounts in item (3) above for certain circumstances as more fully set forth in the Incentive Plan, and as summarized in **Performance Requirements for Deferred Awards** on page 108.

The Employment Agreement provides that Mr. Ericson would not be entitled to any other compensation, bonus, incentive, or severance pay from the Bank other than as specified above and any vested rights which he has under any pension, thrift, or other benefit plan, excluding the severance plan, and, for termination by all means except for Cause, the Incentive Plan.

The right to receive certain termination payments as outlined above is contingent upon, among other things, Mr. Ericson signing a general release of all claims against the Bank in such form as the Bank requires.

Under the Housing and Economic Recovery Act of 2008, the FHFA Director has the authority to prohibit or limit any golden parachute or indemnification payment by an FHLB. FHFA rules on golden parachute payments sets forth the standards the FHFA would take into consideration when limiting or prohibiting golden parachute and indemnification payments by an FHLB when the FHLB is in a troubled condition, in conservatorship or receivership, or insolvent. FHFA rules also generally prohibit an FHLB and the OF from making indemnification payments to any officer, director, employee or other affiliated party to pay or reimburse such person for any liability of legal expense in connection with an administrative proceeding or civil action initiated by the FHFA.

For a further description of potential payments to our NEOs upon termination of employment, see **Potential Payments Upon Termination Table** on page 117.

Pension Plan Benefits

The HR&C Committee believes that retirement plan benefits and retiree health and life insurance are an important part of our NEO compensation program which provides a competitive benefits package. The Pentegra Defined Benefit Plan for Financial Institutions (Pension Plan) and related Benefit Equalization Plan benefits serve a critically important role in the retention of our senior executives (including our NEOs), as benefits under these plans increase for each year that these executives remain employed by us and thus encourage our most senior executives to remain employed by us. We provide additional retirement and savings benefits under the Benefit Equalization Plan because we believe that it is inequitable to limit retirement benefits and the matching portion of the retirement savings plan on the basis of a limit that is established by the IRS for purposes of federal tax policy.

We participate in the Pension Plan, a multiple employer, tax-qualified, noncontributory defined-benefit pension plan that covers most employees, including the NEOs. Benefits under this Pension Plan are based upon the employee's years of service and the employee's consecutive five-year average highest earnings, and are payable after retirement in the form of an annuity or a lump sum. Earnings, for purposes of the calculation of benefits under the Pension Plan, are defined to include salary and bonuses under the applicable short-term incentive plan. The amount of annual earnings that may be considered in calculating benefits under the Pension Plan is limited by law. For 2021, the limitation on annual earnings was \$290,000. In addition, benefits provided under tax-qualified plans may not exceed an annual benefit limit of \$230,000 in 2021.

The formula for determining the normal retirement annual benefit for employees hired prior to January 1, 2010 is 2.25%, multiplied by the number of years of the employee's credited service, multiplied by the employee's consecutive five-year average highest earnings. An employee's retirement benefit vests 20% per year beginning after an employee has completed two years of employment, but is completely vested at age 65 regardless of completed years of employment. Normal retirement age is 65, but a reduced benefit may be elected in connection with early retirement beginning at age 45. All of the NEOs are currently eligible for the early retirement benefit. We also provide health care and life insurance benefits for retired employees of which they pay



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50% of the total Bank premium for each benefit.

Savings Plan Benefits

The Federal Home Loan Bank of Chicago 401(k) Plan (the Savings Plan) is tax-qualified, defined contribution savings plan that we established effective January 15, 2020. Prior to January 15, 2020, our eligible employees had the opportunity to participate in the Pentegra Defined Contribution Plan for Financial Institutions (Pentegra DC Plan), a tax-qualified multiemployer defined contribution savings plan. For our active and eligible employees, the Savings Plan replaced the Pentegra DC Plan on and after January 15, 2020. Under the Savings Plan, employees, including our NEOs, may contribute up to 50% of regular earnings on a before-tax basis to a 401(k) account or on an after-tax basis to a Roth Elective Deferral Account or a regular account. In addition, for employees who have completed one year of service, the Bank matches a portion of the employee's contribution to the Savings Plan (50% for employees with three years of service or less, 75% for employees with more than three years of service but less than five years of service, and 100% for employees with five or more years of service). For 2021, our matching contribution was limited to \$17,400 for each employee.

The Bank's matching contributions to the Savings Plan vest incrementally based on years of employment, with 100% vesting after six years of employment. Pursuant to IRS rules, and effective for 2021, the Savings Plan limits the annual additions that can be made to a participating employee's account to \$58,000 per year. Annual additions include our matching contributions and employee contributions. Of those annual additions, the current maximum before-tax contribution by an employee to a 401(k) account is \$19,500 per year. In addition, no more than \$290,000 of annual compensation may be taken into account in computing benefits under the Savings Plan. Participants age 50 and over are eligible to make catch-up contributions of up to \$6,500 per year. Generally, Savings Plan distributions can only be made at termination of employment. However, an employee may take a withdrawal of employee and employer plan contributions while employed, but an excise tax of 10% is generally imposed on the taxable portion of withdrawals occurring prior to an employee reaching age 59 1/2. Employees may also take one loan each year from the vested portion of the Regular, Roth Elective Deferral and 401(k) Savings Plan accounts. Loan amounts may be between \$1,000 and \$50,000. No more than 50% of the available balance can be borrowed at any time.

Benefit Equalization Plan

We also provide supplemental retirement and savings plan benefits under our Benefit Equalization Plan, a nonqualified unfunded plan that preserves the level of benefits which were intended to be provided under our Pension Plan and Savings Plan in light of legislation limiting benefits under these tax qualified plans. The Benefit Equalization Plan was established in 1994. On December 19, 2008, our Board of Directors approved a new plan, the Federal Home Loan Bank of Chicago Post December 31, 2004 Benefit Equalization Plan, that replaces the former plan. The new plan includes updated provisions related to compliance with Section 409A of the Internal Revenue Code of 1986, but the basic benefits under the plan remain unchanged.

Our Benefit Equalization Plan provides that if an executive officer dies, retires, or terminates employment due to disability when any short-term incentive compensation that was previously earned but deferred in accordance with the deferral provisions of any of the Bank's incentive compensation plans, we will recalculate the officer's pension benefits in order to adjust for the fact that such short-term incentive compensation would not otherwise be included in the officer's base compensation for purposes of calculating pension benefits at the time the executive officer dies, retires, or terminates employment due to disability. We will recalculate the officer's pension benefit as if such deferred amounts had been included in the executive officer's base compensation and the difference between that calculation and the amount to which the retired, deceased or disabled officer is entitled to under the Benefit Equalization Plan as a result of such calculation will be paid in a lump sum.

The Pension Plan benefit under the Benefit Equalization Plan is an amount equal to the difference between the Pension Plan formula without considering legislative limitations, and the benefits which may be provided under the Pension Plan considering such limitations. Generally, participants may elect when Pension Plan benefits under the Benefit Equalization Plan are paid, but not earlier than termination of employment or later than age 70 1/2. Generally, participants may elect to receive a benefit in the form of a single lump sum, a 50% joint and survivor annuity, a 100% joint and survivor annuity with a ten-year certain benefit or a life annuity with a ten-year certain benefit. As noted above, the Benefit Equalization Plan maintained by the Bank is unfunded; however, the Bank owns investments held in a rabbi trust to help satisfy future benefit obligations of the Pension Plan benefit under the Benefit Equalization Plan.

The Benefit Equalization Plan also allows employees to make additional salary reduction contributions up to the maximum percentages allowed under the Savings Plan and to receive matching contributions up to the maximum percentages under the Savings Plan, in each case without giving effect to laws limiting annual additions. Salary reduction contributions and earnings under the Benefit Equalization Plan are treated as deferred income. Effective January 1, 2014, Savings Plan related contributions and earnings in the Benefit Equalization Plan earn interest at the 20 quarter (five year) moving average of the five year Federal Home Loan Bank consolidated obligation bond rate. Generally, a participant's Savings Plan benefit under the



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Benefit Equalization Plan is payable in lump sum as soon as reasonably practicable after his or her termination of employment with the Bank. While employed at the Bank, a participant may, in the event of an unforeseeable emergency, request withdrawal from his or her Savings Plan account, and such request shall be made in a time and manner determined by the HR&C Committee.

Compensation Committee Report

Our Board of Directors has established the HR&C Committee to assist it in matters pertaining to the employment and compensation of the President and CEO, executive officers and our employment and benefits programs in general.

The HR&C Committee is responsible for making recommendations to the Board of Directors regarding the compensation of the President and CEO and approving the compensation of the other executive officers, including base salary, merit increases, incentive compensation and other compensation and benefits. Its responsibilities include reviewing our compensation strategy and its relationship to our goals and objectives, as well as compensation at the other FHLBs and other similar financial institutions that involve similar duties and responsibilities.

The HR&C Committee has reviewed and discussed with our management the Compensation Discussion & Analysis included in this Item 11 - Executive Compensation. In reliance on such review and discussions, the HR&C Committee recommended to the Board of Directors that such Compensation Discussion and Analysis be included in our Annual Report on Form 10-K for the year ended December 31, 2021.

The HR&C Committee:

Michelle L. Gross, Chairperson
Phyllis Lockett, Vice Chairperson
James H. Hegenbarth
John K. Reinke
Michael G. Steelman
Maria E. Wynne
James T. Ashworth, ex officio



(All dollar amounts within this Item 11 Executive Compensation are in whole dollars unless otherwise specified)

Compensation Tables
Summary Compensation Table

The following table sets forth summary compensation information for our NEOs for 2021.

Summary Compensation Table

	Year	Salary ^a	Non-Equity Incentive Plan Compensation		Change in Pension Value ^c	All Other Compensation ^d	Total
			Annual Award	Deferred Award ^b			
Michael A. Ericson ^e	2021	\$850,000	\$425,000	\$256,250	\$ 591,000	\$ 17,956	\$ 2,140,206
President and Chief Executive Officer	2020	592,554	218,368	248,630	1,294,000	18,589	2,372,141
	2019	508,000	220,726	227,421	917,000	17,181	1,890,328
Roger D. Lundstrom	2021	491,310	177,785	210,008	757,000	17,893	1,653,996
Executive Vice President and Chief Financial Officer	2020	490,118	174,990	205,390	2,286,000	18,593	3,175,091
	2019	477,000	188,415	197,758	2,031,000	17,164	2,911,337
John Stocchetti	2021	641,690	241,324	312,500	700,000	15,211	1,910,725
Executive Vice President and Group Head, Mortgage Partnership Finance Program	2020	640,133	237,225	272,600	1,131,000	15,961	2,296,919
	2019	623,000	270,694	257,341	1,229,000	17,317	2,397,352
Laura M. Turnquest	2021	438,780	158,758	212,500	435,000	17,716	1,262,754
Executive Vice President, General Counsel and Corporate Secretary	2020	437,715	157,617	206,741	1,031,000	18,416	1,851,489
	2019	426,000	168,270	166,349	852,000	16,941	1,629,560
Michelle Jonson ^f	2021	446,505	161,523	189,604	198,000	17,840	1,013,472
Executive Vice President and Chief Risk Officer	2020	445,421	159,709	184,635	1,122,000	18,540	1,930,305
	2019	433,500	170,149	172,631	850,000	17,057	1,643,337

^a The base salary increases for 2019 and 2020 for the NEOs became effective February 1, 2019 and February 1, 2020, respectively.

^b All amounts earned for all NEOs reflect the Deferred Award under the Incentive Plan.

^c The amount reported in this column for 2021 represents the aggregate change in the actuarial present value of the NEO's accumulated benefit under the Pension Plan and BEP from December 31, 2020 to December 31, 2021. The change in value resulted primarily from adding another year of credited service based on higher NEO consecutive five-year average earnings. For 2021, the increases are less than in 2020 primarily due to slightly higher interest rates during 2021.

^d Amounts reported for all other compensation include Bank contributions to employee 401(k) and BEP plans, which for 2021, were as follows: Mr. Ericson - \$17,400; Mr. Lundstrom - \$17,400; Mr. Stocchetti - \$14,500; Ms. Jonson - \$17,400; and Ms. Turnquest - \$17,400. Amounts reported for all other compensation also include life insurance premiums paid by the Bank with respect to life insurance for the benefit of each NEO.

^e The Board of Directors named Mr. Ericson President and Chief Executive Officer of the Bank, effective January 1, 2021.

^f Ms. Jonson was not an NEO for year-end 2020; however, her 2020 information was provided in accordance with SEC guidance.



(All dollar amounts within this Item 11 Executive Compensation are in whole dollars unless otherwise specified)

Narrative to Summary Compensation Table

Compensation under the heading Annual Award in the Summary Compensation Table is comprised of the Annual Awards under the Incentive Plan. Compensation under the heading Long Term Award in the Summary Compensation table is comprised of Deferred Awards under the Incentive Plan.

President and Executive Team Incentive Compensation Plan

Annual Awards for 2021 to the NEOs under the Incentive Plan are set forth below. For a description of how these awards were calculated see **President and Executive Team Incentive Compensation Plan** on page 104.

Name	Base Salary	Actual Annual Award as a % of Salary ^a	Actual Annual Award
Michael A. Ericson	\$ 850,000	50.00%	\$ 425,000
Roger D. Lundstrom	491,310	36.19%	177,785
John Stocchetti	641,690	37.61%	241,324
Laura M. Turnquest	438,780	36.18%	158,758
Michelle Jonson	446,505	36.17%	161,523

^a 50% of the Incentive Award achieved as a percentage of base salary is the Annual Award for 2021.

Deferred Awards for the 2019-2021 performance period to the NEOs under the Incentive Plan are set forth below. For a description of how these awards were calculated see **President and Executive Team Incentive Compensation Plan** on page 104.

Name	Deferred Award ^a	Actual Award Percentage ^b	Actual Deferred Award
Michael A. Ericson	\$ 205,000	125%	\$ 256,250
Roger D. Lundstrom	168,006	125%	210,008
John Stocchetti	250,000	125%	312,500
Laura M. Turnquest	170,000	125%	212,500
Michelle Jonson	151,683	125%	189,604

^a Represents the initial deferred portion of the Incentive Award achieved for the 2019-2021 performance period.

^b Represents the earned percentage of the initial deferred portion of the Incentive Award achieved for the 2018-2021 performance period.



(All dollar amounts within this Item 11 Executive Compensation are in whole dollars unless otherwise specified)

Grants of Plan-Based Awards

The following table describes the potential NEO awards under the Incentive Plan for the performance period covering January 1, 2021, through December 31, 2024. See **President and Executive Team Incentive Compensation Plan** starting on page 104 for a description of the performance criteria under this plan.

Name	Incentive Plan ^a	Estimated Future Payouts under Non-Equity Incentive Plan Awards		
		Minimum	Target	Maximum
Michael A. Ericson	Annual	\$ 255,000	\$ 340,000	\$ 425,000
	Deferred	318,750	425,000	531,250
Roger D. Lundstrom	Annual	98,262	147,393	196,524
	Deferred	133,339	177,785	222,231
John Stocchetti	Annual	128,338	192,507	256,676
	Deferred	180,993	241,324	301,655
Laura M. Turnquest	Annual	87,756	131,634	175,512
	Deferred	119,068	158,758	198,447
Michelle Jonson	Annual	89,301	133,952	178,602
	Deferred	121,142	161,523	201,904

^a Annual: Annual Award under the Incentive Plan. The amounts shown are based on the potential awards for each NEO for 2021. Annual awards granted in 2021 were earned in the same year; for such amounts actually earned, please see the Summary Compensation Table. Deferred: Deferred Award under the Incentive Plan. The amounts shown reflect the actual Deferred Awards granted for 2022-2024 based on actual performance for 2021. The Deferred Awards remain subject to adjustment based upon achievement of certain Performance Requirements during the 2022-2024 deferral period and may be reduced to zero if actual achievement is below the minimum achievement level for those Performance Requirements.

Retirement and Other Post-Employment Compensation Table and Narrative

Name	Plan Name	Years Credited Service	Present Value of Accumulated Benefit	Payments During Last Fiscal Year
Michael A. Ericson	Pension	16.42	\$ 1,139,000	\$ —
	BEP	16.42	3,043,000	—
Roger D. Lundstrom	Pension	37.33	3,080,000	—
	BEP	37.33	7,540,000	—
John Stocchetti	Pension	14.75	1,513,000	—
	BEP	14.75	4,440,000	—
Laura M. Turnquest	Pension	16.75	1,448,000	—
	BEP	16.75	2,343,000	—
Michelle Jonson	Pension	18.75	1,281,000	—
	BEP	18.75	2,189,000	—

Our NEOs are entitled to receive retirement benefits through the Pension Plan and the Benefit Equalization Plan. See **Post-Termination Compensation** on page 109. The present value of the current accumulated benefit, with respect to each NEO under both the Pension Plan and the Benefit Equalization Plan, described in the table above is based on certain assumptions described below.

The participant's accumulated benefit is calculated as of December 31, 2021 and 2020. Under the Pension Plan, which is a qualified pension plan, the participant's accumulated benefit amount as of these calculation dates is based on the plan formula, ignoring future service periods and future salary increases during the pre-retirement period. The present value is calculated using the accumulated benefit at each date multiplied by a present value factor based on an assumed age 65 retirement date. As of December 31, 2020, 55% of the Pension Plan benefit is valued using the PRI-2012 mortality table for white collar worker annuitants (with mortality improvement scale MP-2020) and 45% of the Pension Plan benefit is valued using the IRS Applicable mortality table for lump sums projected to 2020. As of December 31, 2021, 55% of the Pension Plan benefit is valued using the PRI-2012 mortality table for white collar worker annuitants (with mortality improvement scale MP-2021) and 45% of the Pension



(All dollar amounts within this Item 11 Executive Compensation are in whole dollars unless otherwise specified)

Plan benefit is valued using the IRS Applicable mortality table for lump sums projected to 2021. The interest rates used are 2.52% as of December 31, 2020 and 2.83% as of December 31, 2021.

The present value amount discounted back to reporting period does not factor in the mortality table. The difference between the present value of the December 31, 2021 accumulated benefit and the present value of the December 31, 2020 accumulated benefit is the change in pension value for the qualified plan presented in the Summary Compensation Table.

Benefits provided under the qualified plan are limited under the Employee Retirement Income Security Act (ERISA). As a result, the Benefit Equalization Plan, which is a nonqualified plan, is designed to provide benefits above the amount allowed under ERISA. The benefits provided under the Benefit Equalization Plan are initially calculated on a gross basis to include benefits provided by the qualified plan. The benefits under the qualified plan are then deducted from the initially calculated gross amount to arrive at the amount of benefits provided by the Benefit Equalization Plan. The participant's accumulated benefit amounts as of these calculation dates are based on plan formula, ignoring future service periods and future salary increases. The present value is calculated by multiplying the benefits accumulated at each date by a present value factor based on an assumed age 65 retirement date. As of December 31, 2020, the Benefit Equalization Plan benefit is valued using the PRI-2012 mortality table for white collar worker annuitants (with mortality improvement scale MP-2020). As of December 31, 2021, the Benefit Equalization Plan benefit is valued using the PRI-2012 mortality table for white collar worker annuitants (with mortality improvement scale MP-2021). The interest rates used are 1.76% as of December 31, 2020 (participants who elected a lump sum as their form of benefit from the Benefit Equalization Plan have their lump sum amounts at age 65 valued at 2.52%, then discounted back to current age at 1.76%) and 2.30% as of December 31, 2021 (participants who elected a lump sum as their form of benefit from the Benefit Equalization Plan have their lump sum amounts at age 65 valued at 2.83%, then discounted back to current age at 2.30%).

The difference between the present value of the December 31, 2021 accumulated benefit and the present value of the December 31, 2020 accumulated benefit is the change in pension value for the nonqualified plan presented in the Summary Compensation Table.

The difference in the interest rates used for the assumptions under the Pension Plan and the Benefit Equalization Plan is due to the Pension Plan being a multi-employer plan and the experience/assumptions under that plan versus our Benefit Equalization Plan being a single employer plan.

Nonqualified Deferred Compensation Table

Name	Plan Name ^a	Executive Contributions in Last FY ^b	Registrant Contributions in Last FY ^c	Aggregate Earnings in Last FY ^d	Aggregate Withdrawals/ Distributions	Aggregate Balance of All Plans at Last FYE ^e
Michael A. Ericson	BEP	\$ 33,500	\$ —	\$ 2,552	\$ —	\$ 171,243
Roger D. Lundstrom	BEP	73,697	10,030	19,876	—	1,192,364
John Stocchetti	BEP	25,491	—	27,195	—	1,563,742
Laura M. Turnquest	BEP	327	—	124	—	7,435
Michelle Jonson	BEP	25,151	5,342	5,237	—	322,099

^a The table above includes salary reduction contributions by our NEOs, and matching contributions by the Bank under the Savings Plan benefit under the Benefit Equalization Plan (BEP). For a description of the BEP, see **Benefit Equalization Plan** on page 111.
^b Represents the amounts of the contributions made by each NEO. These amounts are reflected in the "Salary", "Annual Award" and "Deferred Award" columns of the Summary Compensation Table.
^c Represents the amounts of the contributions made by the Bank for each NEO under the Savings Plan benefit under the BEP. These amounts are reflected in the "All Other Compensation" column of the Summary Compensation Table.
^d Not included in 2021 compensation as rate paid was not above a market rate.
^e The aggregate balance at December 31, 2021, as reported above, includes amounts that are either currently reported or were previously reported as compensation in the Summary Compensation Table for 2021 and prior years for the NEOs to the extent they were NEOs in such years, except the aggregate earnings on deferred compensation to the extent such compensation was not above market rate.



(All dollar amounts within this Item 11 Executive Compensation are in whole dollars unless otherwise specified)

Potential Payments Upon Termination Table

Name	Severance	President and Executive Team Incentive Plan	Health Care	Total
Michael A. Ericson	\$ 850,000	\$ 1,545,344	\$ 24,084	\$ 2,419,428
Roger D. Lundstrom	982,620	928,983	27,094	1,938,697
John Stocchetti	740,412	1,303,067	20,019	2,063,498
Laura M. Turnquest	573,789	855,903	24,084	1,453,776
Michelle Jonson	515,198	842,508	—	1,357,706

The table above and the narrative below outline payments that our NEOs would be entitled to receive in connection with their termination of employment as of December 31, 2021. Due to the number of factors that affect the nature and amounts of compensation and benefits provided upon the potential termination events discussed, the actual amounts paid or distributed may be different.

For Mr. Ericson, the table above outlines termination under the following conditions in accordance with his Employment Agreement: by reason of death or disability, or by the Bank other than for Cause, or by resignation for good reason, or by non-renewal of the Employment Agreement by the Bank (each as defined in the Employment Agreement). For purposes of calculating the benefits outlined in the table above, we have also assumed that Mr. Ericson would continue to receive Bank-subsidized health care coverage. For Mr. Ericson, the amounts reflected in the “President and Executive Team Incentive Plan” column in the table above include the following awards under the Incentive Plan: the earned 2021 Annual Award and the Deferred Awards for the following performance periods: 2019-2021 (as earned); 2020-2022 (assuming target performance); 2021-2023 (assuming target performance); and 2022-2024 (assuming target performance).

Pursuant to the Employment Agreement, if Mr. Ericson’s employment is terminated by him through retirement, he would be entitled to the payments set forth in the “President and Executive Team Incentive Plan” column above and participation in the Bank’s retiree health care benefit plans for him and his spouse, in accordance with the terms of the Federal Home Loan Bank of Chicago Description of Retiree Medical Coverage. Pursuant to the Employment Agreement, if Mr. Ericson’s employment with the Bank is terminated by resignation other than for good reason, he would be entitled to the payments set forth in the “President and Executive Team Incentive Plan” column above.

For the other NEOs, the table above outlines termination under the following conditions in accordance with the Employee Severance Plan: without cause or as a result of constructive discharge (each as defined in the Employee Severance Plan). In addition, we assumed termination was not for cause as defined in the Incentive Plan, that their severance payments do not exceed the limits set forth in the Employee Severance Plan, and that they continue to receive Bank-subsidized health care coverage if the NEO was enrolled in the Bank’s health care benefit plan during 2021. For the other NEOs, the amounts reflected in the “President and Executive Team Incentive Plan” column in the table above include the following awards under the Incentive Plan: the 2021 Annual Award (as earned) and the Deferred Awards for the following performance periods: 2019-2021 (as earned); 2020-2022 (assuming target performance); 2021-2023 (assuming target performance); and 2022-2024 assuming target performance).

Additionally, under the Incentive Plan, assuming termination at December 31, 2021, the same awards as set forth under the “President and Executive Team Incentive Plan” column in the table above would be available to the NEOs (excluding Mr. Ericson, whose Employment Agreement outlines all possible termination scenarios) in the event they terminate employment for any reason, including as set forth in the immediately following sentence. Under the Incentive Plan, the 2021 Annual Award and the 2019-2021, 2020-2022, 2021-2023, and 2022-2024 Deferred Awards as reflected in the table above will also be available to these NEOs in the event they die, become disabled, retire, terminate employment for good reason, or a change of control occurs (as such terms are defined in the Incentive Plan) at December 31, 2021, assuming they did not participate in any activity constituting cause (as defined in the Incentive Plan).

For further details on payments due upon these circumstances to the NEOs, see **Severance Arrangements** on page 109.

In other termination scenarios, including the death, disability or retirement of the NEOs, our NEOs would be entitled to receive benefits generally available to other employees (although for Mr. Ericson the Employment Agreement as described on page 104 outlines all possible benefits he is entitled to receive). The narrative disclosure and tables above describe and quantify the compensation and benefits that are paid in addition to compensation and benefits generally available to other employees. Examples of compensation and benefits generally available to other employees, and thus not included above, are distributions



(All dollar amounts within this Item 11 Executive Compensation are in whole dollars unless otherwise specified)

under the Savings Plan, disability and life insurance benefits to the extent such employee has paid for such benefits, health and life insurance benefits, and amounts for accrued and unpaid salary and vacation.

For more information on the Pension Plan and the BEP, see **Retirement and Other Post-Employment Compensation Table and Narrative** on page 115 and the **Nonqualified Deferred Compensation Table** on page 116, as well as **Pension Plan Benefits** on page 110 and **Benefit Equalization Plan** on page 111.

Pay Ratio

As required by Section 953(b) of the Dodd-Frank Wall Street Reform and Consumer Protection Act, and Item 402(u) of Regulation S-K, we are providing the following information about the relationship of the median of the annual total compensation of our employees and the annual total compensation of Mr. Ericson, our President and CEO in 2021.

For 2021, the median of the annual total compensation of all employees of the Bank (other than Mr. Ericson) (the Median Employee) was \$157,200 and the annual total compensation of Mr. Ericson was \$2,140,206. Annual total compensation for the Median Employee and Mr. Ericson is calculated in the same manner as the "Total" column in the **Summary Compensation Table** on page 113. Based on this information, for 2021, the ratio of the annual total compensation of Mr. Ericson to the Median Employee was 13.61 to 1.

The median employee who was used for purposes of calculating the ratio of the annual total compensation of our President and CEO to the median of the annual total compensation of all employees is the same employee who was identified for purposes of our disclosure in our Form 10-K for the year ended 2020. There has been no change in our employee population or employee compensation arrangements since that median employee was identified that we believe would significantly impact our pay ratio disclosure.

Because the SEC rules for identifying the median of the annual total compensation of our employees and calculating the pay ratio based on that employee's annual total compensation allow companies to adopt a variety of methodologies, to apply certain exclusions, and to make reasonable estimates and assumptions that reflect their employee populations and compensation practices, the pay ratio reported by other companies may not be comparable to the pay ratio for our Bank, as other companies have headquarters or offices in different states and countries, have different employee populations and compensation practices and may utilize different methodologies, exclusions, estimates and assumptions in calculating their pay ratios.



(All dollar amounts within this Item 11 Executive Compensation are in whole dollars unless otherwise specified)

Director Compensation

The goal of our policy governing compensation and travel reimbursement for our Board of Directors is to compensate members of the Board of Directors for work performed on our behalf and to make them whole for out-of-pocket travel expenses incurred while working for the Bank. The fees compensate Directors for their time preparing for and attending in-person and virtual meetings, attending Bank-sponsored member meetings and events, attending Community Investment Advisory Council meetings, attending FHLB System meetings, Board of Directors training, activities that provide information pertinent to the Bank or service on the Board of Directors that are learning opportunities and other activities related to service on the Board of Directors. Director compensation levels are established at the discretion of each FHLB's Board of Directors, provided that the fees are reasonable. In connection with setting director compensation, we participated in an FHLB System review of director compensation in May 2019 which includes a director compensation study prepared by McLagan Partners. The McLagan study includes separate analysis of director compensation at publicly traded banks with between \$10 billion and \$20 billion in assets and the FHLBs.

Our Board of Directors set compensation levels for 2021 as follows:

Position	Maximum Total Annual Compensation
Chairperson of the Board	\$ 145,000
Vice Chairperson of the Board	130,000
Chairperson of the Audit Committee	130,000
Other Committee Chairperson	117,000
All other Directors	105,000

Each director will be paid one quarter of their maximum annual compensation following the end of each quarter. In the event a director serves on the Board for only a portion of a calendar year, or only serves as Chairperson, Vice Chairperson, or Committee Chairperson for a portion of a calendar year, such director's maximum annual compensation shall be adjusted accordingly on a pro-rata basis. If a director does not fulfill his or her responsibility by failing to meet certain performance and attendance criteria set forth in the policy, the director's compensation may be reduced below the maximum amounts shown above. All directors are also entitled to participate in a non-qualified, unfunded, deferred compensation plan, under which each Bank director has the opportunity to defer all or a portion of the compensation paid under this policy. In addition to the maximum annual compensation, the Bank reimburses directors for necessary and reasonable travel and related expenses incurred in connection with the performance of their official duties in accordance with the Bank's employee reimbursement policy.



FHLBank
Chicago Federal Home Loan Bank of Chicago

(All dollar amounts within this Item 11 Executive Compensation are in whole dollars unless otherwise specified)

The Chairperson of the Board, the Vice Chairperson of the Board, and the Chairperson of the Human Resources & Compensation Committee reviewed director performance, as required by the 2021 Board of Directors Compensation Policy, and determined that directors serving during 2021 earned the compensation disclosed in the table below. The HR&C Committee was notified of the determination.

Name	2021 Total Fees Earned	2021 Fees Paid in Cash	2021 Fees Deferred ^a
John K. Reinke - Chairperson	\$ 145,000	\$ 145,000	\$ —
James T. Ashworth - Vice Chairperson	130,000	104,000	26,000
Edward P. Brady	117,000	117,000	—
Mary J. Cahillane	117,000	87,750	29,250
Mark J. Eppli	105,000	105,000	—
Joseph Fazio III	105,000	105,000	—
Michelle L. Gross	117,000	117,000	—
James H. Hegenbarth	105,000	105,000	—
Phyllis Lockett	105,000	105,000	—
David Loundy	105,000	99,750	5,250
David R. Pirsein	117,000	76,050	40,950
Leo J. Ries	105,000	105,000	—
Lois A. Scott	130,000	130,000	—
Michael G. Steelman	105,000	105,000	—
Ty R. Taylor	105,000	105,000	—
Daniel G. Watts	105,000	105,000	—
Gregory A. White	117,000	117,000	—
Andrea Zopp ^b	61,128	61,128	—
Total	\$ 1,996,128	\$ 1,894,678	\$ 101,450

^a Directors could elect to defer fees to a director's non-qualified, unfunded, deferred compensation plan. Earnings on this deferred compensation are not included above as the rate paid was not above a market rate.

^b Director Zopp was appointed to the Board of Directors effective June 1, 2021 as previously disclosed.

The Board compensation policy for 2022 was reported in a Form 8-K/A filed on December 14, 2021 and is attached as Exhibit 10.13 to this Form 10-K.

We are a cooperative and our capital stock may only be held by current and former member institutions, so we do not provide compensation to our directors in the form of stock or stock options. In addition, our directors do not participate in any of our incentive or pension plans.

FHLB Director compensation is subject to FHFA regulations that permit an FHLB to pay its directors reasonable compensation and expenses, subject to the authority of the FHFA Director to object to, and to prohibit prospectively, compensation and other expenses that the FHFA Director determines are not reasonable.

Compensation Committee Interlocks and Insider Participation

During 2021, the following directors served on our HR&C Committee: Michelle L. Gross (Chairperson), Phyllis Lockett (Vice Chairperson), James T. Ashworth, James H. Hegenbarth, Michael G. Steelman, and John K. Reinke (ex-officio). No member of our HR&C Committee has at any time been an officer or employee of the Bank. None of our executive officers have served or are serving on the Board of Directors or the compensation committee of any entity (as defined by Instruction to Item 407(e) of Regulation S-K) whose executive officers served on our HR&C Committee or Board of Directors.



(Dollars in tables in millions except per share amounts unless otherwise indicated)

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.

We are cooperatively owned. Our members (and, in limited circumstances, former members) own our outstanding capital stock, and a majority of our directors are elected from our membership. No individuals, including our directors, officers and employees, may own our capital stock. The exclusive voting rights of members in 2021 are for the election of our directors, as more fully discussed in **2021 Director Election** on page 90.

We do not offer any compensation plan under which our capital stock is authorized for issuance.

The following table sets forth information about beneficial owners of more than 5% of our outstanding regulatory capital stock:

As of January 31, 2022	Regulatory Capital Stock	% of Total
JPMorgan Chase Bank NA 277 Park Avenue, 11th Floor New York, NY 10172	\$ 245	10.29 %
BMO Harris Bank NA 111 West Monroe Street Chicago, IL 60690	137	5.76 %

^a Effective February 19, 2021, we terminated One Mortgage Partners Corp.'s ("OMP") membership in connection with the FHFA rule that made captive insurance companies ineligible for FHLB membership. In December 2021, OMP merged with and into its parent company, JPMorgan Chase Bank NA.



FHLBank
Chicago Federal Home Loan Bank of Chicago

(Dollars in tables in millions except per share amounts unless otherwise indicated)

The following table sets forth information about those members with an officer or director serving as a director of the Bank. Independent directors do not control any capital stock of the Bank.

As of January 31, 2022	Director Name	Regulatory Capital Stock ^a	% of Total
The Park Bank 1815 Greenway Cross Madison, WI 53713	James H. Hegenbarth	\$ 4.84	0.20 %
Waukesha State Bank 151 E. St. Paul Avenue Waukesha, WI 53187	Ty R. Taylor	4.50	0.19 %
Devon Bank 6445 Western Avenue Chicago, IL 60645	David J. Loundy	3.03	0.13 %
Commerce State Bank 1700 S. Silverbrook Drive West Bend, WI 53095	Joseph Fazio III	1.72	0.07 %
The Stephenson National Bank & Trust 1820 Hall Avenue Marinette, WI 54143	John K. Reinke	1.41	0.06 %
CNB Bank & Trust, N.A. 450 West Side Square Carlinville, IL 62626	James T. Ashworth	1.37	0.06 %
First National Bank in Pinckneyville 210 S. Main Street Pinckneyville, IL 62274	David R. Pirsein	0.37	0.02 %
Forest Park National Bank and Trust Company 7348 W. Madison St. Forest Park, IL 60130	Daniel G. Watts	0.36	0.02 %
State Bank of Bement 180 E. Bodman Street Bement, IL 61813	Michelle L. Gross	0.23	0.01 %
Farmers & Merchants State Bank of Bushnell 484 East Main Street Bushnell, IL 61422	Michael G. Steelman	0.04	0.002 %
Total members with a Director as a group		\$ 17.87	0.76 %

^a The regulatory capital stock that a member institution owns is pledged to us as additional collateral on advances and all other outstanding obligations for that member.



(Dollars in tables in millions except per share amounts unless otherwise indicated)

Item 13. Certain Relationships and Related Transactions, and Director Independence.

Related Persons and Related Transactions

We are a cooperative and capital stock ownership is a prerequisite to transacting any member business with us. Our members (and, in limited circumstances, former members) own all of our capital stock.

Our Board of Directors consists of two types of directors: “member directors” and “independent directors”. Member directors are required to be directors or officers of our members, whereas independent directors cannot be directors or officers of a Bank member. For further discussion of the eligibility criteria for our directors, see **Nomination of Member Directors** and **Nomination of Independent Directors** on page 89. We have eight independent directors and ten member directors currently serving on our Board.

We conduct our advances business, the MPF Program, and letters of credit almost exclusively with members. Therefore, in the normal course of business, we extend credit to members whose officers and directors may serve as our directors. We extend credit to them on market terms that are no more favorable than the terms of comparable transactions with other members who are not considered related parties (as defined below). In addition, we may purchase short-term investments, sell federal funds to, and purchase MBS from members (or affiliates of members) whose officers or directors serve as our directors. All such investments are market term transactions and all such MBS are purchased through securities brokers or dealers. As an additional service to our members, including those whose officers or directors serve as our directors, we may enter into interest rate derivatives with members and offset these derivatives with non-member counterparties. These transactions are executed on market terms.

We define a “related person” as any director or executive officer of the Bank, any member of their immediate families, or any holder of 5% or more of our capital stock.

During 2021, we did not have a separate written policy to have the Board of Directors review, approve, or ratify transactions with related persons that are outside the ordinary course of business because such transactions rarely occur. However, it has been our practice to report to the Board all transactions between us and our members that are outside the ordinary course of business, and on a case-by-case basis, seek approval or ratification from the Board. In addition, each director is required to disclose to the Board any personal financial interests he or she has and any financial interests of immediate family members or of a director's business associates where such person or entity does or proposes to do business with us. Under our Code of Ethics, executive officers are prohibited from engaging in conduct that would cause an actual or apparent conflict of interest. An executive officer other than the CEO and President may seek a waiver of this provision from the CEO and President, and the CEO and President may seek a waiver from the Board.

Director Independence

General

Our Board of Directors is required to evaluate and report on the independence of our directors under two distinct director independence standards. First, FHFA 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 its directors and members of its board committees, to the extent the exchange or quotation system selected by the Bank has adopted separate independence rules for such committee members.

See **Information Regarding Current Directors of the Bank** on page 90 for more information on our current directors. None of our directors is a Bank employee or officer. Further, our directors are prohibited from personally owning stock in the Bank. Each of the member directors, however, is a senior officer or director of an institution that is one of our members, and our members are able, and are encouraged, to engage in transactions with us on a regular basis.



(Dollars in tables in millions except per share amounts unless otherwise indicated)

FHFA Regulations Regarding Independence

The FHFA 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 us or our management that would interfere with the exercise of that individual's independent judgment. Relationships considered disqualifying by the FHFA include: employment with the Bank at any time during the last five years; acceptance of compensation from the Bank other than for service as a director; being a consultant, advisor, promoter, underwriter or legal counsel for the Bank at any time within the last five years; and being an immediate family member of an individual who is or who has been within the past five years, a Bank executive officer. Our Board of Directors assesses the independence of each director under the FHFA's independence standards, regardless of whether he or she serves on the Audit Committee. Our Board of Directors determined that all of our directors are independent under these criteria.

SEC Rules Regarding Independence

SEC rules require our Board to adopt a standard of independence to evaluate our directors. Pursuant thereto, the Board adopted the independence standards of the New York Stock Exchange (the NYSE) to determine which of our directors are independent, which members of our Audit Committee and HR&C Committee are not independent, and whether our Audit Committee's financial experts are independent.

Under the NYSE rules, no director qualifies as independent unless the full Board affirmatively determines that he or she has no material relationship with the company (either directly or as a partner, shareholder or officer of an organization that has a relationship with the company). In addition, the NYSE rules set out a number of specific disqualifications from independence, including certain employment relationships between the director or his or her family members and the company, the company's internal or external auditor, another company where any of the company's executive officers is a compensation committee member or another company that conducted business with the company above a specified threshold; and receipt by the director or his or her family members of compensation from the company above a specified threshold (with certain exceptions).

Applying the NYSE independence standards for boards of directors to our current member directors and those who served during 2021, our Board determined that only member directors Loundy, Steelman, Taylor, and Watts did not trigger any of the objective NYSE independence disqualifications. However, based upon the fact that each member director is a senior officer or director of an institution that is a member of the Bank (and thus is an equity holder in the Bank), that each such institution routinely engages in transactions with us, and that such transactions occur frequently and are encouraged, the Board determined that at the present time it would conclude that none of these member directors, consisting of Ashworth, Fazio, Gross, Hegenbarth, Loundy, Pirsein, Reinke, Steelman, Taylor, and Watts meets the independence criteria under the NYSE independence standards. None of the independent directors are employees or officers of institutions that are members of the Bank, and therefore do not have, ongoing business transactions with us. The Board determined that each of these independent directors, consisting of Brady, Cahillane, Eppli, Lockett, Ries, Scott, White (whose term ended on December 31, 2021), Wynne, and Zopp is independent under the NYSE independence standards. Similarly, the Board determined that the following current member directors serving on the Audit Committee, and member directors who served on the Audit Committee during 2021, are not independent under the NYSE independence standards for audit committees: Ashworth, Fazio, Hegenbarth, Loundy, Reinke, and Watts. The Board determined that the following current member directors serving on the HR&C Committee, and member directors who served on the HR&C Committee in 2021, are not independent under the NYSE independence standards for compensation committees: Ashworth, Gross, Hegenbarth, Reinke, and Steelman.



(Dollars in tables in millions except per share amounts unless otherwise indicated)

Item 14. Principal Accountant Fees and Services.

The following table sets forth the aggregate fees we have been charged (or accrued) by our external accounting firm.

For the Years Ended December 31,	(in thousands)	
	2021	2020
Audit fees	\$ 1,086	\$ 985
Audit related fees	262	258
All other fees	6	3
Total fees	<u>\$ 1,354</u>	<u>\$ 1,246</u>

Audit fees were for professional services rendered for the audits of our financial statements. Audit related fees were for other assurance and related services. Other fees related to software license fees. No tax related fees were paid. No fees were paid for financial information system design or implementation.

Our Audit Committee has adopted the Pre-Approval of Audit-Related and Non-Audit Services Policy (the Policy). In accordance with the Policy and applicable law, the Audit Committee pre-approves audit services, audit-related services, and permissible non-audit services to be provided by its independent auditor. The term of any pre-approval of audit services is the Bank's financial year, and of audit-related and non-audit services in the calendar year, unless the Audit Committee specifically provides otherwise. 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.



PART IV

Item 15. Exhibits, Financial Statements Schedules.

(a) See "2021 Annual Financial Statements and Notes"

(b) The below exhibits were filed with the Form 10-K Annual Report to the SEC on March 10, 2022, or as noted below, were filed with the Bank's previously filed Annual, Quarterly, or Current Reports or registration statements, copies of which may be obtained by going to the SEC's website at <http://www.sec.gov>. Each exhibit that is considered a management contract or compensatory plan or arrangement required to be filed is identified with a "**".

Exhibit No.	Description
3.1	Federal Home Loan Bank of Chicago Charter ^a
3.2	Federal Home Loan Bank of Chicago Bylaws ^b
4.1	Capital Plan of the Federal Home Loan Bank of Chicago, as amended and restated effective May 3, 2021 ^c
4.2	Description of Securities ^s
10.1	Advances, Collateral Pledge, and Security Agreement ^d
10.2	Mortgage Partnership Finance Participating Financial Institution Agreement [Origination or Purchase] ^e
10.3	Mortgage Partnership Finance Participating Financial Institution Agreement [Purchase Only] ^f
10.4	Mortgage Partnership Finance Program Consolidated Interbank Agreement, dated July 22, 2016 ^g
10.5	Federal Home Loan Banks P&I Funding and Contingency Plan Agreement, as amended and restated effective as of January 1, 2017, by and among the Office of Finance and each of the Federal Home Loan Banks ^h
10.6	Federal Home Loan Bank of Chicago Key Employee Long Term Incentive Compensation Plan, dated December 19, 2008 ^{*i}
10.7	Federal Home Loan Bank of Chicago President and Executive Team Incentive Compensation Plan, as amended and restated effective January 1, 2017 ^j
10.8	Federal Home Loan Bank of Chicago Benefit Equalization Plan, dated December 16, 2003 ^{*k}
10.9	Federal Home Loan Bank of Chicago Post December 31, 2004 Benefit Equalization Plan, as amended and restated effective January 1, 2013 ^l
10.10	Federal Home Loan Bank of Chicago Employee Severance Plan, dated April 24, 2007 ^{*m}
10.11	Federal Home Loan Bank of Chicago 2020 Board of Directors Compensation Policy ^{*n}
10.12	Federal Home Loan Bank of Chicago 2021 Board of Directors Compensation Policy ^{*o}
10.13	Federal Home Loan Bank of Chicago 2022 Board of Directors Compensation Policy ^{*s}
10.14	Federal Home Loan Bank of Chicago Board of Directors Deferred Compensation Plan, effective September 1, 2013 ^{*p}
10.15	Joint Capital Enhancement Agreement, as amended August 5, 2011 ^q
10.16	Employment Agreement between Federal Home Loan Bank of Chicago and Michael Ericson, entered into as of January 1, 2021 ^{*r}
24	Power of Attorney ^s
31.1	Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 by the Principal Executive Officer ^s
31.2	Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 by the Principal Financial Officer ^s
32.1	Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 by the Principal Executive Officer ^s
32.2	Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 by the Principal Financial Officer ^s
101.INS	Inline XBRL Instance Document - The instance document does not appear in the interactive data file because its XBRL tags are embedded within the inline XBRL document.
101.SCH	Inline XBRL Taxonomy Extension Schema Document ^s
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document ^s
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document ^s
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document ^s
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document ^s
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)



- ^a Filed as Exhibit 3.1 with our Form 10 on December 14, 2005, SEC File No.: 000-51401
- ^b Filed as Exhibit 3.1 with our 8-K Current Report on June 6, 2019, SEC File No.: 000-51401
- ^c Filed as Exhibit 4.1 with our Form 10-Q on May 6, 2021, SEC File No.: 000-51401
- ^d Filed as Exhibit 10.3 with our Form 10-K on March 17, 2011, SEC File No.: 000-51401
- ^e Filed as Exhibit 10.4 with our Form 10 on December 14, 2005, SEC File No.: 000-51401
- ^f Filed as Exhibit 10.4.1 with our Form 10 on December 14, 2005, SEC File No.: 000-51401
- ^g Filed as Exhibit 10.1 with our Form 10-Q on November 3, 2016, SEC File No.: 000-51401
- ^h Filed as Exhibit 10.7 with our Form 10-K on March 9, 2017, SEC File No.: 000-51401
- ⁱ Filed as Exhibit 10.22 with our Form 10-K on March 20, 2009, SEC File No.: 000-51401
- ^j Filed as Exhibit 10.2 on our Form 10-Q on May 8, 2017, SEC File No.: 000-51401
- ^k Filed as Exhibit 10.8.4 with our Form 10 on December 14, 2005, SEC File No.: 000-51401
- ^l Filed as Exhibit 10.2 with our Form 10-Q on November 6, 2013, SEC File No.: 000-51401
- ^m Filed as Exhibit 10.1 with our Form 10-Q on May 11, 2007, SEC File No.: 000-51401
- ⁿ Filed as Exhibit 10.16 with our Form 10-K on March 11, 2020, SEC File No.: 000-51401
- ^o Filed as Exhibit 10.16 with our Form 10-K on March 9, 2021, SEC File No.: 000-51401
- ^p Filed as Exhibit 10.4 with our Form 10-Q on November 6, 2013, SEC File No.: 000-51401
- ^q Filed as Exhibit 99.1 with our 8-K Current Report on August 5, 2011, SEC File No.: 000-51401
- ^r Filed as Exhibit 10.1 with our 8-K/A Current Report on September 18, 2020 SEC File No.:000-51401
- ^s Filed Herewith

Item 16. Form 10-K Summary.

Not applicable.



Glossary of Terms

Advances: Secured loans to members.

ABS: Asset-backed-securities.

AFS: Available-for-sale debt securities.

Agency MBS: Mortgage-backed securities issued by, or comprised of mortgage loans guaranteed by, Fannie Mae or Freddie Mac.

AHP: Affordable Housing Program.

ALM Policy: Our Asset/Liability Management Policy.

AMA: Acquired Member Assets. Assets that an FHLB may acquire from or through FHLB System members or housing associates by means of either a purchase or a funding transaction.

AMA investment grade: A determination made by the Bank with respect to an asset or pool, based on documented analysis, including consideration of applicable insurance, credit enhancements, and other sources for repayment on the asset or pool, that the Bank has a high degree of confidence that it will be paid principal and interest in all material respects, even under reasonably likely adverse changes to expected economic conditions.

AVM: Automated Valuation Methodology. A service that provides real estate property valuations using mathematical modeling combined with a database.

AOI: Accumulated Other Comprehensive Income (Loss).

BEP: Benefit Equalization Plan.

Capital Plan: The Capital Plan of the Federal Home Loan Bank of Chicago, effective as of May 3, 2021.

CARES Act: The Coronavirus, Aid, Relief, and Economic Security Act, enacted March 27, 2020.

CDFI: Community Development Financial Institution.

CE Amount: A PFI's assumption of credit risk, beyond any Recoverable CE Fees in the FLA, on conventional MPF Loan products held in an MPF Bank's portfolio that are funded by, or sold to, an MPF Bank by providing credit enhancement either through a direct liability to pay credit losses up to a specified amount or through a contractual obligation to provide SMI. Does not apply to the MPF Government, MPF Xtra, MPF Direct or MPF Government MBS product.

CE Fee: Credit enhancement fee. PFIs are paid a credit enhancement fee for managing credit risk and in some instances, all or a portion of the CE Fee may be performance based.

CFI: Community Financial Institution - FDIC-insured institutions with an average of total assets over the prior three years which is less than the level prescribed by the FHFA and adjusted annually for inflation. Effective in January 2022, the limit is \$1.239 billion (for 2021, the limit was \$1.224 billion).

CO Curve: Consolidated Obligation curve. The Office of Finance constructs a market-observable curve referred to as the CO Curve. This curve is constructed using the U.S. Treasury Curve as a base curve which is then adjusted by adding indicative spreads obtained largely from market observable sources. These market indications are generally derived from pricing indications from dealers, historical pricing relationships, market activity such as recent GSE trades, and other secondary market activity.

Consolidated Obligations (CO): FHLB debt instruments (bonds and discount notes) which are the joint and several liability of all FHLBs; issued by the Office of Finance.

Consolidated obligation bonds: Consolidated obligations that make periodic interest payments with a term generally over one year, although we have issued for terms of less than one year.

COSO: The Committee of Sponsoring Organizations of the Treadway Commission. A joint initiative of the private sector



dedicated to providing frameworks and guidance on enterprise risk management, internal control and fraud deterrence.

DCO: Derivatives Clearing Organization. A clearinghouse, clearing association, clearing corporation, or similar entity that enables each party to an agreement, contract, or transaction to substitute, through novation or otherwise, the credit of the DCO for the credit of the parties; arranges or provides, on a multilateral basis, for the settlement or netting of obligations; or otherwise provides clearing services or arrangements that mutualize or transfer credit risk among participants.

Discount notes: Consolidated obligations with a term of one year or less, which sell at less than their face amount and are redeemed at par value when they mature.

Dodd-Frank Act: Dodd-Frank Wall Street Reform and Consumer Protection Act, enacted July 21, 2010.

DPP: Downpayment Plus Program.

ERISA: Employee Retirement Income Security Act.

Excess capital stock: Capital stock held by members in excess of their minimum investment requirement.

Fannie Mae: Federal National Mortgage Association.

FASB: Financial Accounting Standards Board.

FCM: Futures Commission Merchant.

FDIC: Federal Deposit Insurance Corporation.

Federal Reserve: Federal Reserve Bank of New York.

FFELP: Federal Family Education Loan Program.

FHA: Federal Housing Administration.

FHFA: Federal Housing Finance Agency - The Housing and Economic Recovery Act of 2008 enacted on July 30, 2008 created the Federal Housing Finance Agency which became the regulator of the FHLBs.

FHFA Purchase Only House Price Index (HPI): The HPI is a broad measure of the movement of single-family house prices. The HPI is a weighted, repeat-sales index, meaning that it measures average price changes in repeat sales or refinancings on the same properties. This information is obtained by reviewing repeat mortgage transactions on single-family properties whose mortgages have been purchased or securitized by Fannie Mae or Freddie Mac since January 1975.

FHLB Act: The Federal Home Loan Bank Act of 1932, as amended.

FHLBs: The 11 Federal Home Loan Banks or subset thereof.

FHLBC: The Federal Home Loan Bank of Chicago.

Finance Board: The Federal Housing Finance Board. We were supervised and regulated by the Finance Board, prior to creation of the Federal Housing Finance Agency as regulator of the FHLBs by the Housing Act, effective July 30, 2008.

Fitch: Fitch Ratings, Inc.

FLA: First loss account is a memo account used to track the MPF Bank's exposure to losses until the CE Amount is available to cover losses.

Freddie Mac: Federal Home Loan Mortgage Corporation.

GAAP: Generally Accepted Accounting Principles in the United States of America.

Ginnie Mae: Government National Mortgage Association.

Ginnie Mae MBS: Mortgage-backed securities guaranteed by Ginnie Mae.



GLB Act: Gramm-Leach-Bliley Act of 1999.

Government Loans: Mortgage loans insured or guaranteed by the Federal Housing Administration (FHA), the Department of Housing and Urban Development (HUD), the Department of Veteran Affairs (VA) or Department of Agriculture Rural Housing Service (RHS).

GSE: Government sponsored enterprise.

HFS: Held for sale.

Housing Act: Housing and Economic Recovery Act of 2008, enacted July 30, 2008.

HR&C Committee: Human Resources and Compensation Committee.

HUD: Department of Housing and Urban Development.

HTM: Held-to-maturity debt securities.

JCE Agreement: Joint Capital Enhancement Agreement entered into by all FHLBs, effective February 28, 2011 and amended August 5, 2011, which is intended to enhance the capital position of each FHLB. The intent of the agreement is to allocate that portion of each FHLB's earnings to a separate retained earnings account at that FHLB.

Lead Bank: MPF Bank selling interests in MPF Loans.

LIBOR: London Interbank Offered Rate.

LTV: Loan-to-value ratio.

Master Commitment (MC): Pool of MPF Loans purchased or funded by an MPF Bank.

MBS: Mortgage-backed securities.

Moody's: Moody's Investors Service.

MPF[®]: Mortgage Partnership Finance.

MPF Banks: FHLBs that participate in the MPF Program.

MPF Direct product: The MPF Program product under which we acquire non-conforming MPF Loans from PFIs and concurrently resell them to a third party investor.

MPF Government MBS product: The MPF Program product under which we aggregate Government Loans acquired from PFIs in order to issue securities guaranteed by the Ginnie Mae that are backed by such Government Loans.

MPF Guides: MPF Program Guide, MPF Selling Guide, and MPF Servicing Guide including the Selling and Servicing Guides and manuals for specific MPF Loan products.

MPF Loans: Conventional and government mortgage loans secured by one-to-four family residential properties with maturities from five to 30 years or participations in such mortgage loans that are acquired under the MPF Program.

MPF Program: A secondary mortgage market structure that provides liquidity to FHLB members that are PFIs through the purchase or funding by an FHLB of MPF Loans.

MPF Provider: The Federal Home Loan Bank of Chicago, in its role of providing programmatic and operational support to the MPF Banks and their PFIs.

MPF Xtra[®] product: The MPF Program product under which we acquire MPF Loans from PFIs without any CE Amount and concurrently resell them to Fannie Mae.

MRCS: Mandatorily Redeemable Capital Stock.



MSA: Metropolitan Statistical Areas (MSAs) are geographic entities delineated by the Office of Management and Budget for use by federal statistical agencies. MSAs consist of the county or counties (or equivalent entities) associated with at least one urbanized area of at least 50,000 population, plus adjacent counties having a high degree of social and economic integration with the core as measured through commuting ties.

NEO: Named executive officer.

Nonaccrual MPF Loans: Nonperforming mortgage loans in which the collection of principal and interest is determined to be doubtful or when interest or principal is past due for 90 days or more, except when the MPF Loan is well secured and in the process of collection.

NRSRO: Nationally Recognized Statistical Rating Organization.

NYSE: New York Stock Exchange.

OCI: Other Comprehensive Income.

Office of Finance: A joint office of the FHLBs established by the Finance Board to facilitate issuing and servicing of consolidated obligations.

OIS: Fed Funds Effective Swap Rate (or Overnight Index Swap Rate).

OTTI: Other-than-temporary impairment.

OTTI Committee: An FHLB System OTTI Committee formed by the FHLBs to achieve consistency among the FHLBs in their analyses of the OTTI of PLMBS.

PCAOB: Public Company Accounting Oversight Board.

Pension Plan: Pentegra Defined Benefit Plan for Financial Institutions.

PFI: Participating Financial Institution. A PFI is a member (or eligible housing associate) of an MPF Bank that has applied to and been accepted to do business with its MPF Bank under the MPF Program.

PFI Agreement: MPF Program Participating Financial Institution Agreement.

PLMBS: Private label mortgage-backed securities.

PMI: Primary Mortgage Insurance.

PwC: PricewaterhouseCoopers LLP.

RCAP: Reduced Capitalization Advance Program.

Recoverable CE Fee: Under the MPF Program, the PFI may receive a contingent performance based credit enhancement fee whereby such fees are reduced up to the amount of the FLA by losses arising under the Master Commitment.

Regulatory capital: Regulatory capital stock plus retained earnings.

Regulatory capital stock: The sum of the paid-in value of capital stock and mandatorily redeemable capital stock.

REO: Real estate owned.

RHS: Department of Agriculture Rural Housing Service.

S&P: Standard and Poor's Rating Service.

Savings Plan: Pentegra Defined Contribution Plan for Financial Institutions.

SBA: Small Business Administration.



SEC: Securities and Exchange Commission.

Secretary: Secretary of the U.S. Treasury.

SMI: Supplemental mortgage insurance.

SOFR: Secured Overnight Financing Rate

System or FHLB System: The Federal Home Loan Bank System consisting of the 11 Federal Home Loan Banks and the Office of Finance.

TBA: A forward contract on a mortgage-backed security (MBS), typically issued by a U.S. government sponsored entity, whereby a seller agrees to deliver an MBS for an agreed upon price on an agreed upon date.

TDR: Troubled Debt Restructuring

UPB: Unpaid Principal Balance.

U.S.: United States

VA: Department of Veterans Affairs.



2021 Annual Financial Statements and Notes

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Report of Independent Registered Public Accounting Firm

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

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 Chicago (the “Bank”) as of December 31, 2021 and 2020, and the related statements of income, comprehensive income, capital, and cash flows for each of the three years in the period ended December 31, 2021, 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, 2021, 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, 2021 and 2020, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2021 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, 2021, 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 Management’s Report on Internal Control over Financial Reporting appearing under Item 9A. 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.

Critical Audit Matters

The critical audit matter communicated below is a matter arising from the current period audit of the financial statements that was communicated or required to be communicated to the audit committee and that (i) relates to accounts or disclosures that are material to the financial statements and (ii) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Valuation of Interest-Rate Derivatives and Hedged Items

As described in Notes 9 and 15 to the financial statements, the Bank uses derivatives to manage interest rate risk. The total notional amount of derivatives as of December 31, 2021 was \$74 billion, of which 95% were designated as hedging instruments, and the fair value of derivative assets and liabilities as of December 31, 2021 was \$14 million and \$32 million, respectively. The fair values of interest-rate derivatives and hedged items not transacted in an active market use standard valuation techniques, such as discounted cash-flow analysis and comparisons to similar instruments. The discounted cash-flow analysis uses market-observable inputs, related to interest rate curves, volatility, and, if applicable, prepayment assumptions.

The principal considerations for our determination that performing procedures relating to the valuation of interest-rate derivatives and hedged items is a critical audit matter are the significant audit effort in evaluating the interest rate curves, volatility, and, if applicable, prepayment assumptions used to fair value these derivatives and hedged items, and the audit effort involved the use of professionals with specialized skill and knowledge.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the financial statements. These procedures included testing the effectiveness of controls relating to the valuation of interest-rate derivatives and hedged items, including controls over the method, data and assumptions. These procedures also included, among others, the involvement of professionals with specialized skill and knowledge to assist in developing an independent range of prices for a sample of interest rate derivatives and hedged items and comparison of management's estimate to the independently developed ranges. Developing the independent range of prices involved testing the completeness and accuracy of data provided by management and independently developing the interest rate curves, volatility, and, if applicable, prepayment assumptions.

PricewaterhouseCoopers LLP

Chicago, Illinois
March 10, 2022

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



FHLBank Chicago Federal Home Loan Bank of Chicago

Statements of Condition

(U.S. Dollars in millions, except capital stock par value)

	December 31, 2021	December 31, 2020
Assets		
Cash and due from banks	\$ 45	\$ 3,541
Interest bearing deposits	855	855
Federal funds sold	3,527	4,125
Securities purchased under agreements to resell	8,740	10,120
Investment debt securities -		
Trading, 645 and 1,292 , pledged	954	4,621
Available-for-sale, 22,340 and 18,145 , amortized cost	22,706	18,437
Held-to-maturity, 1,832 and 1,549 , fair value	1,801	1,491
Investment debt securities	25,461	24,549
Advances, 1,173 and 1,315 , carried at fair value	48,049	46,695
MPF Loans held in portfolio, net of (5) and (3) , allowance for credit losses	9,843	10,038
Derivative assets	14	5
Other assets, 104 and 105 , carried at fair value net of (7) and (7) , allowance for credit losses	420	428
Assets	\$ 96,954	\$ 100,356
Liabilities		
Deposits -		
Demand and overnight - noninterest bearing	\$ 205	\$ 394
Demand and overnight - interest bearing, 11 and 18 , from other FHLBs	829	875
Term deposits - interest bearing	—	15
Deposits	1,034	1,284
Consolidated obligations -		
Discount notes, — and 2,000 , carried at fair value	24,563	48,643
Bonds, 665 and 1,844 , carried at fair value	63,373	42,670
Consolidated obligations, net -	87,936	91,313
Derivative liabilities	32	691
Affordable Housing Program assessment payable	85	89
Mandatorily redeemable capital stock	247	279
Other liabilities	868	411
Liabilities	90,202	94,067
Commitments and contingencies - see notes to the financial statements		
Capital		
Class B1 activity stock, 14 and 13 , million shares issued and outstanding	1,409	1,257
Class B2 membership stock, 7 and 8 , million shares issued and outstanding	740	753
Capital stock - putable, \$100 and \$100 , par value	2,149	2,010
Retained earnings - unrestricted	3,558	3,424
Retained earnings - restricted	703	648
Retained earnings	4,261	4,072
Accumulated other comprehensive income (loss) (AOCI)	342	207
Capital	6,752	6,289
Liabilities and capital	\$ 96,954	\$ 100,356

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


Statements of Income

(U.S. Dollars in millions)

For the years ended December 31,	2021	2020	2019
Interest income	\$ 828	\$ 1,435	\$ 2,635
Interest expense	285	840	2,177
Net interest income	543	595	458
Provision for (reversal of) credit losses	2	7	—
Net interest income after provision for (reversal of) credit losses	541	588	458
Noninterest income -			
Trading securities	(44)	15	24
Investment securities gains	1	109	—
Derivatives	17	(148)	(9)
Instruments held under the fair value option	(46)	60	35
MPF fees, 25 , 31 and 28 , from other FHLBs	46	54	38
Other, net	14	14	12
Noninterest income (loss)	(12)	104	100
Noninterest expense -			
Compensation and benefits	105	132	115
Nonpayroll operating expenses	85	94	96
COVID-19 relief program	3	28	—
Federal Housing Finance Agency and Office of Finance	17	13	12
Other, net	12	8	—
Noninterest expense	222	275	223
Income before assessments	307	417	335
Affordable Housing Program assessment	32	43	35
Net income	\$ 275	\$ 374	\$ 300

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

**Statements of Comprehensive Income**

(U.S. Dollars in millions)

For the years ended December 31,	2021	2020	2019
Net income	\$ 275	\$ 374	\$ 300
Other comprehensive income (loss) -			
Net unrealized gain (loss) available-for-sale debt securities	74	188	(107)
Noncredit OTTI held-to-maturity debt securities	—	85	29
Net unrealized gain (loss) cash flow hedges	54	(27)	(7)
Postretirement plans	7	(10)	1
Other comprehensive income (loss)	135	236	(84)
Comprehensive income	\$ 410	\$ 610	\$ 216

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



Statements of Capital

(U.S. Dollars and shares in millions)

	Capital Stock - Putable - B1 Activity		Capital Stock - Putable - B2 Membership		Retained Earnings			Total
	Shares	Value	Shares	Value	Unrestricted	Restricted	AOCI	
December 31, 2020	13	\$1,257	8	\$ 753	\$ 3,424	\$ 648	\$ 207	\$ 6,289
Comprehensive income					220	55	135	410
Issuance of capital stock	6	669	—	20				689
Repurchase of capital stock	—	—	(6)	(544)				(544)
Capital stock reclassified to mandatorily redeemable capital stock liability	—	—	—	(6)				(6)
Transfers between classes of capital stock	(5)	(517)	5	517				
Cash dividends - class B1 annualized rate and amount		5.00 %			(76)			(76)
Cash dividends - class B2 annualized rate and amount				2.00 %	(10)			(10)
Total change in period, excl. cumulative effect	1	152	(1)	(13)	134	55	135	463
December 31, 2021	14	1,409	7	740	3,558	703	342	6,752
December 31, 2019	13	\$1,337	4	\$ 376	\$ 3,197	\$ 573	\$ (29)	\$ 5,454
Cumulative effect adjustment - see Note 2					(7)			(7)
Comprehensive income					299	75	236	610
Issuance of capital stock	18	1,701	—	24				1,725
Repurchase of capital stock	—	—	(14)	(1,427)				(1,427)
Capital stock reclassified to mandatorily redeemable capital stock liability	—	—	—	(1)				(1)
Transfers between classes of capital stock	(18)	(1,781)	18	1,781				
Partial recovery of prior capital distribution to FICO - see Note 12					19			19
Cash dividends - class B1 annualized rate and amount		5.00 %			(77)			(77)
Cash dividends - class B2 annualized rate and amount				2.25 %	(7)			(7)
Total change in period, excl. cumulative effect	—	(80)	4	377	234	75	236	842
December 31, 2020	13	1,257	8	753	3,424	648	207	6,289
December 31, 2018	15	1,476	2	222	3,023	513	55	5,289
Cumulative effect adjustment - see Note 2					16			16
Comprehensive income					240	60	(84)	216
Issuance of capital stock	23	2,398	—	25				2,423
Repurchase of capital stock	—	—	(23)	(2,398)				(2,398)
Capital stock reclassified to mandatorily redeemable capital stock liability	—	(9)	—	(1)				(10)
Transfers between classes of capital stock	(25)	(2,528)	25	2,528				
Cash dividends - class B1 annualized rate and amount		5.00 %			(78)			(78)
Cash dividends - class B2 annualized rate and amount				2.19 %	(4)			(4)
Total change in period, excl. cumulative effect	(2)	(139)	2	154	158	60	(84)	149
December 31, 2019	13	1,337	4	376	3,197	573	(29)	5,454

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


Statements of Cash Flows

(U.S. Dollars in millions)

For the years ended December 31,		2021	2020	2019
Operating	Net income	\$ 275	\$ 374	\$ 300
Adjustments to reconcile net income to net cash provided by operating activities -				
	Net amortization (accretion)	132	137	79
	Change in net fair value on derivatives and hedging activities	186	(579)	(557)
	Realized (gain) loss on sale of HTM securities	—	(103)	—
	Net change in fair value on trading securities	44	(15)	(24)
	Net change in fair value on financial instruments held under fair value option	46	(60)	(35)
	Other, net	27	11	2
	Changes in operating assets and liabilities	22	(80)	92
	Net cash provided by (used in) operating activities	732	(315)	(143)
Investing	Net change interest bearing deposits	—	825	(905)
	Net change federal funds sold	598	3,231	348
	Net change securities purchased under agreements to resell	1,380	(3,370)	(3,850)
Trading debt securities -				
	Sales	—	1,602	2,455
	Proceeds from maturities and paydowns	4,352	1,654	1,506
	Purchases	(749)	(3,225)	(5,129)
Available-for-sale debt securities -				
	Sales	20	33	—
	Proceeds from maturities and paydowns	605	902	4,521
	Purchases	(5,145)	(2,785)	(5,897)
Held-to-maturity debt securities -				
	Sales	—	404	—
	Proceeds from maturities and paydowns	2,711	2,485	2,846
	Purchases	(3,021)	(1,795)	(1,961)
Advances -				
	Principal collected	523,849	965,414	1,570,475
	Issued	(525,736)	(961,113)	(1,567,994)
MPF Loans held in portfolio -				
	Principal collected	3,118	4,103	1,690
	Purchases	(3,004)	(4,222)	(4,614)
	Other investing activities	(15)	(38)	5
	Net cash provided by (used in) investing activities	\$ (1,037)	\$ 4,105	\$ (6,504)



FHLBank
Chicago Federal Home Loan Bank of Chicago

For the years ended December 31,		2021	2020	2019
Financing	Net change deposits, (6) , 3 , and (13) , from other FHLBs	\$ (250)	\$ 437	\$ 296
Discount notes -				
	Net proceeds from issuance	402,576	760,866	1,368,607
	Payments for maturing and retiring	(426,653)	(753,826)	(1,370,102)
Consolidated obligation bonds -				
	Net proceeds from issuance	46,604	39,750	44,693
	Payments for maturing and retiring	(25,489)	(47,690)	(36,790)
Capital stock -				
	Proceeds from issuance	689	1,725	2,423
	Repurchases	(544)	(1,427)	(2,398)
	Cash dividends paid	(86)	(84)	(82)
	Other financing activities	(38)	(29)	1
	Net cash provided by (used in) financing activities	(3,191)	(278)	6,648
Net increase (decrease) in cash and due from banks				
		(3,496)	3,512	1
	Cash and due from banks at beginning of period	3,541	29	28
	Cash and due from banks at end of period	\$ 45	\$ 3,541	\$ 29
Supplemental				
Cash activities				
	Interest paid	\$ 466	\$ 1,093	\$ 2,051
	Affordable Housing Program assessments paid	36	38	35
Noncash activities				
	Transfer of MPF Loans held for sale in other assets to securitized mortgage loans in trading debt securities	417	368	204
	Investment securities purchased but settled in subsequent periods	504	60	587

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

**Notes to Financial Statements****(Dollars in tables in millions except per share amounts unless otherwise indicated)****Note 1 – Background and Basis of Presentation**

The Federal Home Loan Bank of Chicago is a federally chartered corporation and one of 11 Federal Home Loan Banks (the FHLBs) that, with the Office of Finance, comprise the Federal Home Loan Bank System (the System). The FHLBs are government-sponsored enterprises (GSE) of the United States of America and were organized under the Federal Home Loan Bank Act of 1932, as amended (FHLB Act), in order to improve the availability of funds to support home ownership. We are supervised and regulated by the Federal Housing Finance Agency (FHFA), an independent federal agency in the executive branch of the United States (U.S.) government.

Each FHLB is a member-owned cooperative with members from a specifically defined geographic district. Our defined geographic district is Illinois and Wisconsin. All federally insured depository institutions, insurance companies engaged in residential housing finance, credit unions and community development financial institutions located in our district are eligible to apply for membership with us. All our members are required to purchase our capital stock as a condition of membership. Our capital stock is not publicly traded, and is issued, repurchased or redeemed at par value, \$100 per share, subject to certain statutory and regulatory limits. As a cooperative, we do business with our members, and former members (under limited circumstances). Specifically, we provide credit principally in the form of secured loans called advances. We also provide liquidity for home mortgage loans to members approved as Participating Financial Institutions (PFIs) through the Mortgage Partnership Finance[®] (MPF[®]) Program.

Our accounting and financial reporting policies conform to generally accepted accounting principles in the United States of America (GAAP). Amounts in prior periods may be reclassified to conform to the current presentation and, if material, are disclosed in the following notes.

Unless otherwise specified, references to we, us, our, and the Bank are to the Federal Home Loan Bank of Chicago.

"Mortgage Partnership Finance", "MPF", "eMPF", "MPF Xtra", "Downpayment Plus", "DPP", "Downpayment Plus Advantage", "DPP Advantage", and "Community First" are registered trademarks of the Federal Home Loan Bank of Chicago.

Refer to the **Glossary of Terms** starting on page 128 for the definitions of certain terms used herein.

Use of Estimates and Assumptions

We are required to make estimates and assumptions when preparing our financial statements in accordance with GAAP. The most significant of these estimates and assumptions applies to fair value measurements, which includes derivative instruments. Our actual results may differ from the results reported in our financial statements due to such estimates and assumptions. This includes the reported amounts of assets and liabilities, the reported amounts of income and expense, and the disclosure of contingent assets and liabilities.

**Notes to Financial Statements****(Dollars in tables in millions except per share amounts unless otherwise indicated)****Basis of Presentation**

Gross versus Net Presentation - We present derivative assets and liabilities on a net basis in our statements of condition when our right to net amounts due between us and our counterparty, or us and our clearing agent, is enforceable at law. We include accrued net interest settlements and cash collateral, including initial and variation margin, in the carrying amount of a derivative. Over-the-counter derivatives are netted by contract (e.g., master netting agreement), to discharge all or a portion of the amounts that would be owed to our counterparty by applying them against the amounts that our counterparty owes to us. Additionally, we clear certain derivatives transactions with clearinghouses classified as a Derivatives Clearing Organization (DCO), through Futures Commission Merchants (FCM), a clearing member of the DCO. If these netted amounts are positive, they are classified as a derivative asset and if negative, they are classified as a derivative liability. We characterize the treatment of variation margin payments as settlements rather than as collateral for our cleared derivatives. As a result, we account for variation margin payments as settlements to our derivative assets and derivative liabilities. See **Note 2 - Summary of Significant Accounting Policies** for further details.

The net exposure for these financial instruments can change on a daily basis; therefore, there may be a delay between the time this exposure change is identified and additional collateral is requested, and the time when this collateral is received or pledged. Likewise, there may be a delay for excess collateral to be returned. For derivative instruments that meet the netting requirements, any excess cash collateral received or pledged is recognized as a derivative liability or asset. Derivatives that do not have the legal right of offset are presented on a gross basis in our statements of condition.

Refer to **Note 9 - Derivatives and Hedging Activities** for further details.

Our policy is to report securities purchased under agreements to resell and securities sold under agreements to repurchase, if any, and securities borrowing transactions, if any, on a gross basis.

Consolidation of Variable Interest Entities - We are not the primary beneficiary of any variable interest entity. Specifically, we do not have the power to direct the activities of any variable interest entity that would most significantly impact its economic performance and we do not have the obligation to absorb losses or the right to receive benefits from any variable interest entity that could potentially be significant to a variable interest entity. As a result, we do not consolidate any of our investments in variable interest entities. Instead, we classify variable interest entities as investment debt securities in our statements of condition. Such investment debt securities include, but are not limited to, Federal Family Education Loan Program asset backed securities (FFELP ABS). Our maximum loss exposure for these investment debt securities is limited to their carrying amounts. We have no liabilities related to these investments in variable interest entities. We have not provided financial or other support (explicitly or implicitly) to these investment debt securities that we were not previously contractually required to provide, nor do we intend to provide such support in the future.

**Notes to Financial Statements****(Dollars in tables in millions except per share amounts unless otherwise indicated)****Note 2 – Summary of Significant Accounting Policies**

We adopted the Accounting Standards Update Measurement of Credit Losses on Financial Instruments (ASU 2016-13), as amended, for interim and annual periods effective January 1, 2020, on a modified retrospective basis. The impact at the time of adoption was recognized for any difference between our existing and Currently Expected Credit Losses (CECL) allowance for credit losses as a cumulative effect adjustment to the opening balance of our retained earnings as of January 1, 2020. We recorded a cumulative effect adjustment to our opening balance of retained earnings of \$(7) million, which related to Community First[®] Fund (the “Fund”) loans. There were no other material adjustments recognized at the time of adoption.

ASU 2016-13 amended existing GAAP guidance applicable to measuring credit losses on financial assets carried at amortized cost, which includes loans and held-to-maturity (HTM) securities, to be presented at the net amount expected to be collected. The guidance also requires credit losses relating to these financial instruments as well as available-for-sale (AFS) securities to be recorded through an allowance for credit losses. The amendment replaced the “incurred loss” impairment methodology with a “currently expected credit losses” or CECL framework. The measurement of CECL is based on relevant information about certain events, including historical experience, current conditions, and reasonable and supportable forecasts that affect the collectability of the financial instrument’s reported amount. Expected recoveries of amounts previously written off and expected to be written off should be included in the allowance for credit losses determination but should not exceed the aggregate of amounts previously written off and expected to be written off by us. In addition, for collateral dependent financial assets, the amendment indicated that an allowance for credit losses that is added to the amortized cost of the financial asset(s) should not exceed amounts previously written off. We present accrued interest receivable separately from the amortized cost of loans and HTM debt securities in Other assets on our statement of condition. An allowance for credit losses determination is not required because we recognize the reversal of interest on a monthly basis in the event of an interest shortfall. The accounting for HTM and available for sale (AFS) debt securities changed on a prospective basis. Additionally, HTM and AFS debt securities will have their own allowance for credit losses, as applicable.

Fair Value

Fair value represents the exit price that we would receive to sell an asset or pay to transfer a liability in an orderly transaction with a market participant at the measurement date.

Valuation Techniques and Significant Inputs

We utilize the fair value hierarchy when selecting valuation techniques and significant inputs to measure the fair value of our assets and liabilities. Our valuation techniques may utilize market, cost, and/or income models to estimate fair values. Under the fair value hierarchy, valuation techniques and significant inputs are prioritized from the most objective, such as quoted market prices in external active markets, to the least objective, such as valuation approaches that utilize unobservable inputs. The fair value hierarchy requires us to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value. Outlined below is an overview of Level 1, Level 2, and Level 3 of the fair value hierarchy. Refer to **Note 15 - Fair Value** for further details on our valuation techniques and significant inputs.

Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities that we can access at the measurement date.

Level 2 inputs are inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly. If the asset or liability has a specified (contractual) term, a Level 2 input must be observable for substantially the full term of the asset or liability.

Level 3 inputs are unobservable inputs used to measure fair value of an asset or liability to the extent that relevant observable inputs are not available; for example, situations in which there is little, if any, market activity for the asset or liability at the measurement date.

Fair Value Option

Financial instruments for which we elect the fair value option are carried at fair value with any changes in fair value immediately recognized as Noninterest Income - Instruments Held Under Fair Value Option, net in our statements of income. Interest income or expense recognized in our statements of income on these financial instruments is based solely on the contractual amount of interest due or unpaid, except for our zero coupon rate discount notes for which we accrete the initial discount into interest expense over the life of the discount note. Any transaction fees or costs, are immediately recognized into noninterest expense - other in our statements of income. See **Note 15 - Fair Value** to the financial statements for further details.

**Notes to Financial Statements****(Dollars in tables in millions except per share amounts unless otherwise indicated)****Cash and Cash Equivalents**

We consider only cash and due from banks as cash and cash equivalents. We do not have any restricted cash.

Interest Bearing Deposits, Federal Funds Sold and Securities Purchased Under Agreements to Resell

We invest in interest-bearing deposits, securities purchased under agreements to resell, and federal funds sold. Securities purchased under agreements to resell are accounted for as short-term collateralized loans. These investments provide short-term liquidity and are carried at amortized cost. Accrued interest receivable is presented separately in our statement of condition.

Interest bearing deposits, federal funds sold, and securities purchased under agreements to resell are evaluated quarterly for expected credit losses. Under CECL, the Bank uses the collateral maintenance provision practical expedient for our securities purchased under agreements to resell, which allows expected credit losses to be measured based on the difference between the fair value of the collateral and the investment's amortized cost. Consequently, a credit loss would be recognized if there is a collateral shortfall which the Bank does not believe the counterparty will replenish in accordance with its contractual terms. The credit loss would be limited to the difference between the fair value of the collateral and the investment's amortized cost. These investments provide short-term liquidity and are carried at amortized cost. If applicable, an allowance for credit losses is recorded with a corresponding adjustment to the provision (reversal) for credit losses. We did not establish an allowance for credit losses for our unsecured overnight interest bearing deposits or federal funds sold as of December 31, 2021 since all federal funds sold were repaid and all unsecured overnight interest bearing deposits were returned according to their contractual terms.

Investment Debt Securities

We record purchases and sales of investment debt securities (securities) on a trade date basis. We classify securities as either trading, available-for-sale (AFS), or held-to-maturity (HTM) based on the criteria outlined below. Classification is made at the time a security is acquired and then reassessed on a quarterly basis or as the need arises.

- Securities held solely for liquidity purposes are classified as trading and are carried at fair value. We are prohibited from holding trading debt securities for speculative purposes pursuant to FHFA regulations.
- Securities held to provide additional earnings are classified as HTM. Classification as HTM requires that we have both the intent and ability to hold the security to maturity.
- Securities not classified as either trading or HTM are classified as AFS; for example, securities held for asset-liability management purposes.

Our accounting policies for trading, AFS and HTM debt securities are outlined below. For all securities the cost of a security sold or the amount reclassified out of accumulated other comprehensive income into earnings is determined on a specific identification basis.

Trading debt securities are carried at fair value with any changes in fair value immediately recognized as noninterest income on trading debt securities in our statements of income. As a result, trading debt securities are not assessed for credit losses. Interest income on trading debt securities is based solely on the contractual amount of interest due, except for securities, if any, that have a zero coupon rate. For trading debt securities with a zero coupon rate, we accrete the initial discount into interest income over their life into our statements of income. Cash flows from trading debt securities, excluding cash flows from our securitized MPF Government MBS product, are presented on a gross basis and classified as investing activities in our statements of cash flows. Cash flows from our securitized MPF Government MBS product are presented on a gross basis and classified as operating activities in our statements of cash flows.

AFS securities are carried at fair value with any changes in fair value immediately recognized into Other Comprehensive Income (OCI) as net unrealized gains (losses) on AFS securities, except for AFS securities that are in a fair value hedge relationship. Changes in fair value related to the benchmark interest rate on AFS securities in a fair value hedging relationship are immediately recognized into interest income in our statements of income together with the related change in the fair value of the derivative with the remainder of the change in fair value of the security recorded in OCI as net unrealized gains (losses) on AFS securities.

For securities classified as AFS, we evaluate an individual security for impairment on a quarterly basis. Impairment exists when the fair value of the investment is less than its amortized cost basis (i.e., in an unrealized loss position). In assessing whether a credit loss exists on an impaired security, we consider whether there would be a shortfall in receiving all cash flows contractually

**Notes to Financial Statements****(Dollars in tables in millions except per share amounts unless otherwise indicated)**

due. When a shortfall is considered possible, we compare the present value of cash flows expected to be collected from the security with the amortized cost basis of the security. If the present value of cash flows is less than amortized cost basis, an allowance for credit losses is recorded with a corresponding adjustment to the provision (reversal) for credit losses. The allowance is limited to the amount of the unrealized loss. If management intends to sell an AFS security in an unrealized loss position or more likely than not will be required to sell the security before expected recovery of its amortized cost, any allowance for credit losses is written off and the amortized cost basis is written down to the security's fair value at the reporting date. If management does not intend to sell an AFS security, and it is not more likely than not that management will be required to sell the debt security, then the unrealized loss is recorded as net unrealized gains (losses) on AFS securities within OCI.

For improvements in impaired AFS securities with an allowance for credit losses recognized after the adoption of new guidance, the allowance for credit losses associated with recoveries may be derecognized up to its full amount.

HTM securities are carried at amortized cost. Amortized cost represents the original cost of a security adjusted for accretion, amortization, collection of principal, and write-downs on or subsequent to January 1, 2020 recognized into earnings (less any cumulative effect adjustments). Accrued interest receivable is presented separately in our statement of condition.

HTM securities are evaluated quarterly for expected credit losses on a pool basis unless an individual assessment is deemed necessary because the securities do not possess similar risk characteristics. In assessing whether a credit loss exists on an impaired security, we consider whether there is expected to be a shortfall in receiving all cash flows contractually due. When a shortfall is considered possible, we compare the present value of cash flows expected to be collected from the security with the amortized cost of the security. If the present value of cash flows is less than amortized cost, an allowance for credit losses is recorded with a corresponding adjustment to the provision (reversal) for credit losses. Prior to January 1, 2020, credit losses were recorded as a direct write-down of the HTM security carrying value.

For improvements in cash flows on impaired HTM securities with an allowance for credit losses recognized after the adoption of the guidance, the allowance for credit losses associated with recoveries may be derecognized up to its full amount. Specifically, we evaluate the yield of each impaired HTM security on a quarterly basis. We adjust the impaired security's yield for subsequent increases or decreases in its estimated cash flows, if any. The adjusted yield is then used to calculate the amount to be recognized into interest income over the remaining life of the impaired security. For improvements in impaired HTM securities with an allowance for credit losses recognized after the adoption of the guidance, the allowance for credit losses associated with recoveries may be derecognized up to its full amount. HTM securities are evaluated quarterly for expected credit losses on a pool basis unless an individual assessment is deemed necessary because the securities do not possess similar risk characteristics. In assessing whether a credit loss exists on an impaired security, we consider whether there is expected to be a shortfall in receiving all cash flows contractually due. When a shortfall is considered possible, we compare the present value of cash flows expected to be collected from the security with the amortized cost of the security. If the present value of cash flows is less than amortized cost, an allowance for credit losses is recorded with a corresponding adjustment to the provision (reversal) for credit losses. Prior to January 1, 2020, credit losses were recorded as a direct write-down of the HTM security carrying value.

Certain changes in circumstances may cause us to change our intent to hold a security to maturity without calling into question our intent to hold other debt securities to maturity in the future. The sale or transfer of an HTM security due to changes in circumstances, such as evidence of significant credit deterioration in the issuer's creditworthiness or changes in regulatory requirements, is not considered inconsistent with its original classification. Other events that are isolated, nonrecurring, and unusual for us that could not have been reasonably anticipated by us may cause us to sell or transfer an HTM security without necessarily calling into question our intent to hold other debt securities to maturity. Further, the sale of an HTM debt security would not be considered inconsistent with its classification as HTM if (1) the sale occurs near enough to its maturity date (for example, within three months of maturity) or call date if exercise of the call is probable, that interest rate risk is substantially eliminated as a pricing factor and the changes in market interest rates would not have a significant effect on the security's fair value; or (2) the sale of the security occurs after the Bank has already collected a substantial portion (at least 85%) of the principal outstanding due either to prepayments on the debt security or to scheduled payments on a debt security payable in equal installments (both principal and interest) over its term.

We use the interest method to amortize/accrete premiums/discounts on HTM and AFS securities into interest income in our statements of income. HTM and AFS securities having a prepayment feature amortize/accrete premiums/discounts over their estimated lives based on anticipated prepayments. We recalculate their effective yield on an ongoing basis to reflect actual payments to date and anticipated future payments. HTM and AFS securities that do not have a prepayment feature amortize/accrete premiums/discounts over their contractual life.

Gains and losses on sales of securities are included in noninterest income in our statements of income.

**Notes to Financial Statements****(Dollars in tables in millions except per share amounts unless otherwise indicated)****Advances**

An advance is carried at its amortized cost, except when we elect the fair value option. Amortized cost represents the original amount funded to our member adjusted for any accretion, amortization, collection of cash, and fair value hedge accounting adjustments, if any. Fair value hedge adjustments include ongoing (open) and/or discontinued (closed) fair value hedges. We utilize the interest method to amortize/accrete over contractual life any premiums/discounts and closed fair value and/or cash flow hedging adjustments. Pursuant to CECL, accrued interest receivable is presented separately on our statement of condition except for advances for which we elected the fair value option. The advances carried at amortized cost are evaluated quarterly for expected credit losses. If deemed necessary, an allowance for credit losses is recorded with a corresponding adjustment to the provision (reversal) for credit losses. Refer to **Note 6 - Advances** and **Note 8 - Allowance for Credit Losses** for further details.

In cases where the Bank funds a new advance concurrently with or within a short period of time before or after the prepayment of an existing advance, it evaluates whether it constitutes a new advance. If the Bank concludes the difference is more than minor based on using both quantitative and qualitative assessments of the modifications made to the original contractual terms, then the advance is accounted for as a new advance. The existing advance is considered terminated with any prepayment fees and related hedging adjustments are immediately recognized into interest income. Prepayment fees on advances treated as modifications are deferred and amortized as a yield adjustment to interest income.

We issued advances with a zero coupon interest rate as part of our COVID-19 relief program. We imputed an interest rate based on prevailing market rates creating a discount on the advance with the offset immediately recognized to the COVID-19 program expense. We accreted the discount as a yield adjustment to interest income over the life of the advance.

MPF Loans*MPF Loans Held in Portfolio*

MPF Loans for which we have the intent and ability to hold for the foreseeable future, or until maturity or payoff, are classified as MPF Loans held in portfolio. Such loans are carried on an amortized cost in our statements of condition. Amortized cost represents the initial fair value amount of the MPF delivery commitment as of the purchase or settlement date, agent fees (i.e., market risk premiums or discounts paid to or received from PFIs), if any, subsequently adjusted, if applicable, for accretion, amortization, collection of cash, charge-offs, and cumulative basis adjustments related to fair value hedges. We use the interest method to amortize yield adjustments into interest income in our statements of income over the contractual life of an MPF Loan held in portfolio. Accrued interest receivable is presented separately in our statement of condition. The Bank performs a quarterly assessment of its mortgage loans held in portfolio to estimate expected credit losses. An allowance for credit losses is recorded with a corresponding adjustment to the provision (reversal) for credit losses.

Pursuant to CECL, the Bank measures expected credit losses on mortgage loans on a collective basis, pooling loans with similar risk characteristics. If a mortgage loan no longer shares risk characteristics with other loans, it is removed from the pool and evaluated for expected credit losses on an individual basis. Such loans are considered collateral dependent loans. Specifically, a loan is considered collateral dependent if repayment is expected to be provided substantially through the sale of the collateral when the borrower is experiencing financial difficulty based on the entity's assessment as of the reporting date. A loan that is considered collateral dependent is measured for credit loss on an individual basis based on the fair value of the underlying property less estimated selling costs, with any shortfall recognized as an allowance for credit loss or charged-off. When developing the allowance for credit losses, the Bank measures the estimated loss over the remaining life of a mortgage loan, which also considers how the Bank's credit enhancements mitigate credit losses. If a loan is purchased at a discount, the discount does not offset the allowance for credit losses. The allowance excludes uncollectible accrued interest receivable, as the Bank writes off accrued interest receivable by reversing interest income if a mortgage loan is placed on nonaccrual status.

The Bank includes estimates of expected recoveries within the allowance for credit losses. See **Note 8 – Allowance for Credit Losses** for details on the allowance methodologies relating to mortgage loans. See **Note 7 - MPF Loans Held in Portfolio** for further details pertaining to the MPF Program and MPF Loans.

**Notes to Financial Statements****(Dollars in tables in millions except per share amounts unless otherwise indicated)***MPF Loans Held for Sale*

MPF Loans acquired by the Bank under the MPF Government MBS product are classified as MPF Loans held for sale (HFS). We classify MPF Loans HFS in Other Assets rather than as a separate line item in our statements of condition on the basis of materiality. Other products such as MPF Xtra[®] loans are generally bought and resold on the same day and thus are not carried on our balance sheet. MPF Loans under the MPF Government MBS product are reclassified from MPF Loans HFS to trading debt securities upon their securitization qualifying for sales accounting treatment. Cash flows from MPF Government MBS Products are classified as operating activities in our statements of cash flows. We have elected the fair value option for these MPF Loans HFS. The difference between the price paid to a PFI for a MPF Loan HFS and the price we receive from a third party for such loan is intended to include compensation for future operating expenses incurred to administer the loans. These amounts and other related transaction fees are recognized into noninterest income - MPF fees in our statements of income as follows:

- Amounts used to pay for third party transaction costs attributable to the sale and securitization of MPF Loans HFS are recognized immediately.
- For MPF Loans HFS sold where servicing is retained by the PFI, the amounts are recognized on a straight-line basis over the life of the loan.
- For MPF Loans HFS sold where servicing is released, the amounts are recognized immediately.
- At foreclosure following the acquisition of real estate owned (REO) unless a gain is recognized in noninterest income because the REO's fair value is supportable by objective evidence in the marketplace.

Allowance for Credit Losses

We determine an allowance for credit losses, if any, for each of our portfolio segments based on CECL beginning January 1, 2020. Previously, we recognized a credit loss when it was probable a credit loss has been incurred and when the credit loss amount was reasonably estimable. A portfolio segment represents the level of disaggregation we utilize to develop and document a systematic method for determining an allowance for credit losses attributable to our financing receivables. An allowance for credit losses is a contra valuation account attributable to an on-balance sheet portfolio segment. We recognize the change in our allowance for credit losses during the reporting period as a provision for (reversal of) credit losses in our statements of income. We establish a separate liability for credit losses, if any, attributable to off-balance sheet financial instruments, such as standby letters of credit (also referred to herein as letters of credit), using the same approach described above for on-balance sheet financial instruments. We recognize the change in credit losses attributable to off-balance sheet financial instruments during the reporting period, if any, as a provision for (reversal of) credit losses in our statements of income.

Charge-off Policy

We recognize a charge-off on an MPF Loan upon the occurrence of a confirming event, which include, but are not limited to, the events shown below. The charge-off amount equals the difference between the loan's amortized cost and its fair value, less costs to sell. We use an Automated Valuation Methodology (AVM) to determine the fair value of our impaired conventional MPF Loans held in portfolio, including troubled debt restructurings, and REO. The charge-off policy does not apply to Government Loans which are guaranteed.

- When a loan is 180 days or more past due and its fair value, less cost to sell, is less than the loan's amortized cost, except when there is a presumption that the loan's amortized cost will be collected.
- When a borrower is in bankruptcy, loans are written down to the fair value of the collateral, less costs to sell, within 60 days of receipt of the notification of filing from the bankruptcy court or within the delinquency time frames specified in the guidance, whichever is shorter. A loan is not written down if the loan is performing, the borrower continues making payments on the loan, and repayment in full is expected.
- Fraudulent loans, not covered by any existing representations and warranties in the loan purchase agreement, are charged off within 90 days of discovery of the fraud, or within the delinquency time frames specified in the adverse classification guidance, whichever is shorter.

**Notes to Financial Statements****(Dollars in tables in millions except per share amounts unless otherwise indicated)****Past Due**

Past due loans are those where the borrower has failed to make a payment of principal and interest within 30 days of its due date. In determining a single family mortgage loan's delinquency status, the Bank may use one of two methods to recognize partial payments. A payment equivalent to 90 percent or more of the contractual payment may be considered a full payment in computing delinquency. Alternatively, the Bank may use the paid through date. In the latter case, credit is given for aggregate partial payments received.

If the Bank can clearly document that the delinquent loan is well secured and in the process of collection, such that collection will occur regardless of delinquency status, then the loan need not be adversely classified. A well secured loan is collateralized by a perfected security interest in real property with an estimated fair value, less cost to sell, sufficient to recover the amortized cost in the loan. In the process of collection means that either a collection effort or legal action is proceeding and is reasonably expected to result in recovery of the loan balance or restoration of the loan to a current status, generally within the next 90 days. Other exceptions to this adverse classification policy might be for loans that are supported by valid insurance claims, like federal loan guarantee programs.

Nonaccrual

Conventional MPF Loans held in portfolio are placed on nonaccrual when they become 90 days past due and/or are "adversely classified" - that is, when a loan is classified as "Substandard", "Doubtful", or "Loss".

An adverse classification means that such a loan is not considered well secured and is in the process of collection. All previously accrued but not collected interest is reversed from interest income. Subsequent accruals of interest income are discontinued. Ongoing recognition of any discounts, premiums, deferred loan origination fees or costs, and hedge basis adjustments also are discontinued.

As a general rule, a nonaccrual asset may be restored to accrual status when (1) none of its principal and interest is due and unpaid, and the Bank expects repayment of the remaining contractual principal and interest, or (2) when it otherwise becomes well secured and in the process of collection.

Troubled Debt Restructurings (TDRs)

We consider a troubled debt restructuring of a financing receivable to have occurred when we grant a concession to a borrower that we would not otherwise consider for economic or legal reasons related to the borrower's financial difficulties. Insignificant delays in payment of 6 months or less are not considered troubled debt restructurings. Troubled debt restructurings include loans that resulted from borrowers that filed for Chapter 7 bankruptcy in which the bankruptcy court discharged the borrower's obligation to us and the borrower did not reaffirm the debt. We place conventional MPF Loans that are deemed to be troubled debt restructurings on nonaccrual status. MPF Loans that are modified as part of a troubled debt restructuring or are in bankruptcy may be returned to accrual status provided such loans have been performing for 6 consecutive months, none of its contractual principal and interest is due and unpaid, and we expect repayment of the remaining contractual interest and contractual principal.

Off-Balance Sheet Credit Exposures

The Bank evaluates its off-balance sheet credit exposures on a quarterly basis for expected credit losses. If deemed necessary, we establish a separate liability for credit losses, if any, attributable to off-balance sheet financial instruments, such as standby letters of credit (also referred to herein as letters of credit), using the same approach described above for on-balance sheet financial instruments. We recognize the change in credit losses attributable to off-balance sheet financial instruments during the reporting period, if any, as a provision for or (reversal of) credit losses in our statements of income.

Refer to **Note 8 - Allowance for Credit Losses** for further details.

Derivatives

In August of 2017, the FASB issued Targeted Improvements to Accounting for Hedging Activities (ASU 2017-12). Upon adoption as of January 1, 2019, we modified the risk being hedged of certain fair value hedges from contractual coupon interest rate to benchmark rate component, improving hedge effectiveness. The opening cumulative adjustment related to modifying the risk being hedged was an increase to retained earnings of \$16 million and a corresponding increase to the cumulative basis adjustment (carrying value) of the hedged items.

**Notes to Financial Statements****(Dollars in tables in millions except per share amounts unless otherwise indicated)**

We presented hedge ineffectiveness and net interest settlements as either interest income or interest expense in our statements of income. Prior to 2019, we presented such amounts in derivatives and hedging activities in our statements of income. For cash flow hedges, we recognize changes in fair value on the hedged item in AOCI until they are required to be reclassified into our statements of income - that is, amounts recorded in AOCI are reclassified either to interest income or interest expense depending on the hedged item during the period in which the hedged transaction affects earnings.

We carry all derivatives at fair value in our statements of condition. We designate derivatives either as fair value hedges, cash flow hedges, or economic hedges. We use fair value hedges to manage our exposure to changes in fair value of (1) a recognized asset or liability or (2) an unrecognized firm commitment attributable to changes in a benchmark interest rate. Our cash flow hedge strategy is to hedge the total net proceeds received from rolling forecasted zero-coupon discount note issuances attributable to changes in the benchmark interest rate by entering into interest rate swaps to mitigate such risk. We are not using the cash flow hedge strategy for new transactions at this time, as we use LIBOR as the benchmark interest rate for cash flow hedges and we are not entering into new LIBOR-linked transactions. We use economic hedges in cases where hedge accounting treatment is not permitted or achievable.

Accounting for Variation Margin Payments - We account for variation margin payments made to or received by the DCOs (Derivatives Clearing Organization) through our FCMs (Futures Commission Merchant) as settlements to our cleared derivative assets and derivative liabilities.

Derivative Hedge Accounting - We apply hedge accounting to qualifying hedge relationships. A qualifying hedge relationship exists when a derivative hedging instrument is expected to be highly effective in offsetting changes in fair values, cash flows, or underlying risk of the hedged item during the term of the hedge relationship. We prepare formal contemporaneous documentation at inception of the hedge relationship to support that the hedge relationship qualifies for hedge accounting treatment and assess hedge effectiveness on an ongoing basis.

We immediately recognize changes in fair values for both the derivative hedging instrument and the related hedged item beginning on the derivative hedging instrument's trade date. For fair value hedges, changes in fair value on the hedged item are recognized as a cumulative basis adjustment and are included in the amortized cost basis of the asset or liability being hedged. For cash flow hedges, the changes in fair value of the hedging instrument are recorded to AOCI first and reclassified into earnings (net interest income) as the hedged item affects earnings.

Economic Hedges - Changes in fair value on economic hedges are immediately recognized as noninterest income on derivatives and hedging activities in our statements of income. Accrual of net interest settlements on economic hedges are recognized as noninterest income on derivatives and hedging activities in our statements of income.

MPF Delivery Commitments - Commitments to purchase MPF Loans are carried at fair value as a derivative asset or derivative liability, with changes in fair value immediately recognized as noninterest income on derivatives and hedging activities in our statements of income.

Advance Commitments - An unhedged advance commitment on an advance we intend to hold for investment purposes upon funding is accounted for as a firm commitment rather than a derivative. Firm commitments are accounted for off-balance sheet rather than carried at fair value. Changes in fair value related to an advance commitment in a fair value hedge relationship are immediately recognized in interest income.

We discontinue hedge accounting treatment prospectively for an existing fair value or cash flow hedge if any one of the following occurs:

- Any hedge criterion is no longer met.
- The derivative expires or is sold, terminated, or exercised.
- We voluntarily remove the designation as a hedge.

Refer to **Note 9 - Derivatives and Hedging Activities** for additional details.

Consolidated Obligations

Consolidated obligations consist of discount notes and consolidated obligation bonds. Consolidated obligations are the joint and several liability of the FHLBs.

**Notes to Financial Statements****(Dollars in tables in millions except per share amounts unless otherwise indicated)**

We carry consolidated obligations on an amortized cost basis, except when we elect the fair value option. Amortized cost basis represents the amount funded to us adjusted for any premiums and discounts, concession fees, and cumulative basis adjustments, if any, related to ongoing (open) and/or discontinued (closed) fair value hedges (fair value hedging adjustments). Cumulative basis adjustments represent the changes in fair value of the hedged items, therefore, they are only applicable to fair value hedges. For cash flow hedges, the changes in fair value of the hedging instrument are recorded to OCI first. We use the interest method to amortize/accrete premiums/discounts, concession fees, and hedging adjustments on consolidated obligations into interest expense in our statements of income. The amortization/accretion period for a callable consolidated obligation is over its estimated life. The amortization/accretion period for a consolidated obligation that is noncallable or that has a zero-coupon rate is over its contractual life. We immediately recognize any remaining premiums/discounts, concession fees, and any fair value and/or hedging adjustments attributable to a consolidated obligation that is called into interest expense in our statements of income.

We consider our joint and several liability for consolidated obligations as a related party guarantee. GAAP guidance pertaining to the initial recognition and measurement of guarantees does not apply to related party guarantees. As a result, we did not recognize an initial liability for our joint and several liability at fair value. We would accrue a liability if subsequently we expect to pay any amounts on behalf of other FHLBs under the joint and several liability.

See **Note 10 - Consolidated Obligations** to the financial statements for further details.

Capital and Mandatorily Redeemable Capital Stock (MRCS)

Capital stock is issued and recorded at par. We also record the repurchase and redemption of our capital stock from our members at par because our capital stock can only be acquired and redeemed or repurchased at par value. It is not publicly traded and no market mechanism exists for the exchange of our capital stock outside our cooperative structure. The capital stock repurchased and redeemed is retired. We recognize dividends on our capital stock on the date they are declared by our Board of Directors.

We reclassify capital stock from equity to mandatorily redeemable capital stock (MRCS), a liability on our statements of condition, once we become unconditionally obligated to redeem capital stock by transferring cash at a specified or determinable date (or dates) or upon an event certain to occur. Capital stock is reclassified to MRCS at fair value. The fair value of capital stock subject to mandatory redemption is its par value (as indicated by contemporaneous member purchases and sales at par value) plus any dividends related to the capital stock which are also reclassified as a liability, accrued at the expected dividend rate, and reported as a component of interest expense.

Refer to **Note 12 - Capital and Mandatorily Redeemable Capital Stock (MRCS)** for further details.

Operating Lease

Expenses attributable to our leases are included in noninterest expense - operating expenses in our statements of income. Payments related to our operating leases are classified within operating activities in our statements of cash flows.

In the fourth quarter of 2019, we recorded an operating lease asset and lease liability of \$56 million related to new office space at 433 West Van Buren Street, Chicago, Illinois, to replace then existing office space. The new lease agreement terminates in December 2035, subject to options to extend the lease or terminate early. At December 31, 2021 our operating lease net asset was \$48 million and our lease liability was \$54 million, compared to \$53 million and \$56 million at December 31, 2020. We recognized noninterest expense of lease amortization of \$3 million for each of the years ended December 31, 2021, and 2020. The amortization was immaterial in 2019.

Pentegra Defined Benefit (DB) Plan for Financial Institutions (the Pension Plan)

We participate in the Pentegra Defined Benefit (DB) Plan for Financial Institutions (the Pension Plan), a tax-qualified defined-benefit pension plan. We account for the Pension Plan as a multiemployer plan since contributions made by us may be used to provide benefits to participants of other participating employers. Net pension cost recognized into our statements of income includes our minimum required contribution plus administrative fees. A prepaid pension asset is recognized when our contributions are in excess of 100% of our minimum required contribution while a liability is recognized for contributions due and unpaid at the end of the reporting period. Refer to **Note 14 - Employee Retirement Plans** for further details.

The following amendments to GAAP became effective March 12, 2020:

In March of 2020, the FASB issued Accounting Standards Update (ASU): Reference Rate Reform (Topic 848) Facilitation of the Effects of Reference Rate Reform on Financial Reporting (ASU 2020-04). The amendments provide optional expedients and

**Notes to Financial Statements****(Dollars in tables in millions except per share amounts unless otherwise indicated)**

exceptions for applying generally accepted accounting principles (GAAP) to contracts, hedging relationships, and other transactions affected by reference rate reform if certain criteria are met. The amendments apply for a limited period of time to ease the potential burden in accounting for (or recognizing the effects of) reference rate reform on financial reporting. In January of 2021, the FASB issued ASU 2021-01 Reference Rate Reform (Topic 848) Scope, that refined the scope of Topic 848 and clarified some of its provisions. The amendments permit us to elect certain optional expedients and exceptions when accounting for derivative contracts and certain hedging relationships affected by changes in the interest rates used for discounting cash flows, for computing variation margin settlements, and for calculating price alignment interest (PAI) in connection with reference rate reform activities underway in global financial markets (the “discounting transition”). In this regard, during the fourth quarter of 2020, we elected optional expedients specific to discounting transition on a retrospective basis, which did not have a material effect on our financial statements.

Optional Expedients for Contract Modifications:

- Includes replacement of reference rate and contract modifications to add or change fallback provisions.
- Modifications of receivables or debt may be accounted for as yield adjustments. No gain or loss would be recognized.
- Modifications do not require reassessment of whether an embedded derivative should be bifurcated.
- Election must be applied consistently for all eligible contracts.

Optional Expedients for Fair Value Hedges:

- Change in benchmark rate is permitted. A change to the cumulative fair value basis adjustment may need to be recognized in current earnings.
- Certain qualifying conditions for the shortcut method may be disregarded for the remainder of the fair value hedging relationship to continue the shortcut method.
- The optional expedient may be elected on an individual hedging relationship basis.

Optional Expedients for Cash Flow Hedges:

- The designated hedged risk may change for a forecasted transaction and we may continue to apply hedge accounting if the hedge remains highly effective. Certain criteria need to be met, for example, if the designated hedged interest rate risk is a rate that is affected by reference rate reform.
- For cash flow hedges for which either the hedging instrument or hedged forecasted transactions reference a rate that is expected to be affected by reference rate reform, an entity may adjust how it applies the method used to initially and subsequently assess hedge effectiveness.
- For cash flow hedges of portfolios of forecasted transactions that reference a rate that is expected to be affected by reference rate reform, an entity may disregard the requirement that the group of individual transactions must share the same risk exposure for which they are designated as being hedged.
- The optional expedients for cash flow hedging relationships may be elected on an individual hedging relationship basis.

The amendments apply only to contracts, hedging relationships, and other transactions that reference LIBOR or another reference rate expected to be discontinued because of reference rate reform. The expedients and exceptions provided by the amendments do not apply to contract modifications made and hedging relationships entered into or evaluated after December 31, 2022, except for hedging relationships existing as of December 31, 2022, that we elected certain optional expedients for and that are retained through the end of the hedging relationship.

Optional One-Time Election to Sell or Transfer Debt Securities Classified as Held-to-Maturity (HTM)

During the fourth quarter of 2020, we adopted a provision of the Accounting Standards Update entitled Facilitation of the Effects of Reference Rate Reform on Financial Reporting that provides a one-time election to sell HTM securities that reference a rate affected by reference rate reform and that were classified as HTM before January 1, 2020.

In October 2020, we adopted the one-time election provision to sell HTM private label mortgage-backed securities (PLMBS) to reduce our exposure to LIBOR. We also sold certain LIBOR-affected AFS securities at this time. Specifically:



Notes to Financial Statements

(Dollars in tables in millions except per share amounts unless otherwise indicated)

- We sold HTM PLMBS that had an amortized cost of \$296 million, and recognized a net realized gain of \$101 million.
- We sold AFS PLMBS with an amortized cost basis of \$26 million, and recognized a net realized gain of \$6 million.

In October 2020, we also sold certain HTM PLMBS in which the sale of the securities occurred after the Bank had already collected at least 85% of the principal outstanding at acquisition. These HTM PLMBS had an amortized cost of \$6 million, and we recognized a net realized gain of \$2 million from the sale.

Neither of the above HTM sales resulted in the tainting of our held-to-maturity portfolio.

We expect to elect the optional expedients for all contract modifications related to LIBOR and certain optional expedients related to hedging relationships. At this time we do not expect these optional elections to have a material financial statement impact.

Note 3 – Recently Issued but Not Yet Adopted Accounting Standards

There were no recently issued but not yet adopted accounting standards which may have a material effect on our financial statements.


Notes to Financial Statements

(Dollars in tables in millions except per share amounts unless otherwise indicated)

Note 4 – Interest Income and Interest Expense

The following table presents interest income and interest expense for the periods indicated.

For the years ended December 31,	2021	2020	2019
Interest income -			
Trading	\$ 47	\$ 107	\$ 85
Available-for-sale interest income	197	313	481
Available-for-sale prepayment fees	11	2	3
Available-for-sale	208	315	484
Held-to-maturity	29	75	135
Investment debt securities	284	497	704
Advance interest income	253	535	1,329
Advance prepayment fees	29	51	4
Advances	282	586	1,333
MPF Loans held in portfolio	251	295	313
Federal funds sold	5	30	189
Securities purchased under agreements to resell	2	14	64
Interest bearing deposits	2	8	28
Other	2	5	4
Interest income	828	1,435	2,635
Interest expense -			
Consolidated obligations -			
Discount notes	44	307	1,038
Bonds	229	516	1,109
Other	12	17	30
Interest expense	285	840	2,177
Net interest income	\$ 543	\$ 595	\$ 458



Notes to Financial Statements

(Dollars in tables in millions except per share amounts unless otherwise indicated)

Note 5 – Investment Debt Securities

We classify debt securities as either trading, held-to-maturity (HTM), or available-for-sale (AFS). Our security disclosures within these classifications are disaggregated by major security types as shown below. Our major security types are based on the nature and risks of the security:

- U.S. Government & other government related - may consist of the sovereign debt of the United States; debt issued by GSE; debt issued by the Tennessee Valley Authority; and securities guaranteed by the Small Business Administration.
- Federal Family Education Loan Program - asset-backed-securities (FFELP ABS).
- GSE mortgage-backed securities (MBS) - issued by Fannie Mae and Freddie Mac.
- Government guaranteed MBS.
- State or local housing agency obligations.

We have no allowance for credit losses on our investment debt securities and we have elected to exclude accrued interest receivable from the amortized cost in the following HTM tables. See **Note 8 - Allowance for Credit Losses** for further details on these amounts.

Pledged Collateral

We disclose the amount of investment debt securities pledged as collateral pertaining to our derivatives activity on our **Statements of Condition**. See **Note 9 - Derivatives and Hedging Activities** for further details.

Trading Debt Securities

The following table presents the fair value of our trading debt securities.

As of	December 31, 2021	December 31, 2020
U.S. Government & other government related	\$ 948	\$ 4,612
MBS		
GSE	6	8
Government guaranteed	—	1
Trading debt securities	\$ 954	\$ 4,621

The following table presents our gains and losses on trading debt securities recorded in Noninterest Income - Other, net.

For the years ended December 31,	2021	2020	2019
Net unrealized gains (losses) on securities held at period end	\$ (14)	\$ (2)	\$ 5
Net realized gains (losses) on securities sold/matured during the period	(30)	17	19
Net gains (losses) on trading debt securities	\$ (44)	\$ 15	\$ 24



Notes to Financial Statements

(Dollars in tables in millions except per share amounts unless otherwise indicated)

Available-for-Sale Debt Securities (AFS)

The following table presents the amortized cost and fair value of our AFS debt securities.

	Amortized Cost Basis	Gross Unrealized Gains in AOCI	Gross Unrealized (Losses) in AOCI	Net Carrying Amount and Fair Value
As of December 31, 2021				
U.S. Government & other government related	\$ 4,659	\$ 34	\$ (12)	\$ 4,681
State or local housing agency	8	1	—	9
FFELP ABS	2,642	130	—	2,772
MBS				
GSE	14,849	234	(26)	15,057
Government guaranteed	182	5	—	187
Available-for-sale debt securities	\$ 22,340	\$ 404	\$ (38)	\$ 22,706
As of December 31, 2020				
U.S. Government & other government related	\$ 1,535	\$ 83	\$ —	\$ 1,618
State or local housing agency	14	1	—	15
FFELP ABS	2,922	121	(9)	3,034
MBS				
GSE	13,413	147	(59)	13,501
Government guaranteed	261	8	—	269
Available-for-sale debt securities	\$ 18,145	\$ 360	\$ (68)	\$ 18,437

^a Includes adjustments made to the cost basis of an investment for accretion, amortization, and fair value hedge accounting adjustments. This also includes accrued interest receivable of \$54 million and \$53 million at December 31, 2021 and December 31, 2020.

We had material sales of AFS debt securities in the fourth quarter of 2020. We sold PLMBS during October 2020, as discussed in **Note 2 – Summary of Significant Accounting Policies**. Any gains or losses are determined on a specific identification basis.



Notes to Financial Statements

(Dollars in tables in millions except per share amounts unless otherwise indicated)

Held-to-Maturity Debt Securities (HTM)

The following table presents the amortized cost, carrying amount, and fair value of our HTM debt securities.

	Amortized Cost and Net Carrying Amount	Gross Unrecognized Holding Gains	Fair Value
As of December 31, 2021			
U.S. Government & other government related	\$ 1,506	\$ 11	\$ 1,517
MBS			
GSE	214	19	233
Government guaranteed	71	1	72
Other	\$ 10	\$ —	\$ 10
Held-to-maturity debt securities	\$ 1,801	\$ 31	\$ 1,832
As of December 31, 2020			
U.S. Government & other government related	\$ 1,098	\$ 24	\$ 1,122
MBS			
GSE	285	31	316
Government guaranteed	94	2	96
Other	\$ 14	\$ 1	\$ 15
Held-to-maturity debt securities	\$ 1,491	\$ 58	\$ 1,549

^a Includes adjustments made to the cost basis of an investment for accretion, and/or amortization.

We had sales of HTM debt securities in the fourth quarter of 2020. We sold third party PLMBS during October 2020, as discussed in **Note 2 – Summary of Significant Accounting Policies**. Any gains or losses are determined on a specific identification basis.


Notes to Financial Statements

(Dollars in tables in millions except per share amounts unless otherwise indicated)

Interest Rate Payment Terms

The following table presents the interest rate payment terms of AFS and HTM debt securities at amortized cost basis for the reporting periods indicated.

As of December 31,	Available-for-Sale		Held-to-Maturity	
	2021	2020	2021	2020
Non-MBS				
Fixed-rate	\$ 4,665	\$ 1,546	\$ 1,506	\$ 1,097
Variable-rate	2,644	2,925	—	1
MBS				
Fixed-rate	14,331	13,339	144	194
Variable-rate	700	335	151	199
Total	\$ 22,340	\$ 18,145	\$ 1,801	\$ 1,491

Contractual Maturity

The maturity of our AFS and HTM debt securities is detailed in the following table. ABS/MBS are not presented by contractual maturity because their expected maturities will likely differ from contractual maturities as borrowers may have the right to call or prepay obligations with or without call or prepayment fees.

As of December 31, 2021	Available-for-Sale		Held-to-Maturity	
	Amortized Cost Basis	Net Carrying Amount and Fair Value	Amortized Cost and Net Carrying Amount	Fair Value
Non ABS/MBS Year of Maturity -				
Due in one year or less	\$ 3,264	\$ 3,264	\$ 1,222	\$ 1,223
Due after one year through five years	7	7	25	26
Due after five years through ten years	450	458	259	268
Due after ten years	946	961	—	—
ABS and MBS	17,673	18,016	295	315
Total debt securities	\$ 22,340	\$ 22,706	\$ 1,801	\$ 1,832


Notes to Financial Statements

(Dollars in tables in millions except per share amounts unless otherwise indicated)

AFS Securities in a Continuous Unrealized Loss Position

The following table presents unrealized losses on our AFS portfolio for periods less than 12 months and for 12 months or more. These losses are considered temporary as we expect to recover the entire amortized cost basis and neither intend to sell these securities nor consider it more likely than not that we will be required to sell these securities before the anticipated recovery of each security's remaining amortized cost basis (with the exception of PLMBS sold in October 2020, as discussed in **Note 2 – Summary of Significant Accounting Policies**). In the tables below, in cases where the gross unrealized losses for an investment category are less than \$1 million, the losses are not reported.

	Less than 12 Months		12 Months or More		Total	
	Fair Value	Gross Unrealized (Losses)	Fair Value	Gross Unrealized (Losses)	Fair Value	Gross Unrealized (Losses)
Available-for-sale debt securities						
As of December 31, 2021						
U.S. Government & other government related	\$ 3,764	\$ (12)	\$ —	\$ —	\$ 3,764	\$ (12)
MBS						
GSE	1,549	(23)	54	(3)	1,603	(26)
Available-for-sale debt securities	\$ 5,313	\$ (35)	\$ 54	\$ (3)	\$ 5,367	\$ (38)
As of December 31, 2020						
U.S. Government & other government related	\$ —	\$ —	\$ 2	\$ —	\$ 2	\$ —
FFELP ABS	21	—	459	(9)	480	(9)
MBS						
GSE	102	(1)	6,327	(58)	6,429	(59)
Available-for-sale debt securities	\$ 123	\$ (1)	\$ 6,788	\$ (67)	\$ 6,911	\$ (68)

Credit Loss Analysis

We recognized no credit losses on HTM or AFS debt securities for the periods presented.

Accretion on Prior Years' Other-Than-Temporary Impairment

Increases in cash flows expected to be collected and recognized into interest income on prior years' credit related OTTI charges on our AFS or HTM PLMBS due to accretion were \$18 million and \$27 million for the years ended 2020 and 2019. We had no accretion in 2021 as we sold the PLMBS during October 2020, as discussed in **Note 2 – Summary of Significant Accounting Policies**.


Notes to Financial Statements
(Dollars in tables in millions except per share amounts unless otherwise indicated)
Note 6 – Advances

We offer a wide range of fixed and variable rate advance products with different maturities, interest rates, payment characteristics and options.

We have no allowance for credit losses on our advances and we have elected to exclude accrued interest receivable from the amortized cost in the following tables. See **Note 8 - Allowance for Credit Losses** for further details on these amounts.

The following table presents our advances by terms of contractual maturity and the related weighted average contractual interest rate. For amortizing advances, contractual maturity is determined based on the advance's amortization schedule. Actual maturities may differ from contractual maturities because some borrowers have the right to call or prepay advances with or without penalties.

As of December 31, 2021	Par Value Amount	Weighted Average Contractual Interest Rate
Due in one year or less	\$ 13,609	0.40 %
One to two years	9,542	0.50 %
Two to three years	7,079	0.67 %
Three to four years	3,031	1.23 %
Four to five years	4,223	1.12 %
Five to fifteen years	9,717	1.55 %
More than fifteen years	507	5.13 %
Total	\$ 47,708	0.86 %

The following table presents our advances by terms of contractual maturity and reconciles the par value of our advances to the carrying amount on our statements of condition as of the dates indicated.

As of	December 31, 2021	December 31, 2020
Fixed-rate due in one year or less	\$ 9,285	\$ 9,290
Fixed-rate due after one year	18,679	18,684
Total fixed-rate	27,964	27,974
Variable-rate due in one year or less	4,324	4,116
Variable-rate due after one year	15,420	13,730
Total variable-rate	19,744	17,846
Par value	47,708	45,820
Fair value hedging adjustments	227	760
Other adjustments	114	115
Advances	\$ 48,049	\$ 46,695

The following advance borrowers exceeded 10% of our advances outstanding.

As of December 31, 2021	Par Value	% of Total Outstanding
JPMorgan Chase Bank NA	^a \$ 11,000	23.1 %

^a Effective February 19, 2021, we terminated One Mortgage Partners Corp.'s ("OMP") membership in connection with the FHFA rule that made captive insurance companies ineligible for FHLB membership. In December 2021, OMP merged with and into its parent company, JPMorgan Chase Bank NA.



Notes to Financial Statements

(Dollars in tables in millions except per share amounts unless otherwise indicated)

Note 7 – MPF Loans Held in Portfolio

We acquire MPF Loans from PFIs to hold in our portfolio and historically purchased participations in pools of eligible mortgage loans from other FHLBs (MPF Banks). MPF Loans that are held in portfolio are fixed-rate conventional and Government Loans secured by one-to-four family residential properties with maturities ranging from 5 years to 30 years or participations in pools of similar eligible mortgage loans from other MPF Banks.

The following table presents information on MPF Loans held in portfolio by contractual maturity at the time of purchase. We have an allowance for credit losses on our MPF Loans and we have elected to exclude accrued interest receivable from the amortized cost in the following tables. See **Note 8 - Allowance for Credit Losses** for further details on these amounts.

As of	December 31, 2021	December 31, 2020
Medium term (15 years or less)	\$ 1,653	\$ 1,403
Long term (greater than 15 years)	8,031	8,453
Unpaid principal balance	9,684	9,856
Net premiums, credit enhancement, and/or deferred loan fees	174	177
Fair value hedging and delivery commitment basis adjustments	(10)	8
MPF Loans held in portfolio, before allowance for credit losses	9,848	10,041
Allowance for credit losses on MPF Loans	(5)	(3)
MPF Loans held in portfolio, net	\$ 9,843	\$ 10,038
Conventional mortgage loans	\$ 8,845	\$ 8,979
Government Loans	839	877
Unpaid principal balance	\$ 9,684	\$ 9,856

The above table excludes MPF Loans acquired under the MPF Xtra and MPF Government MBS products. See **Note 2 - Summary of Significant Accounting Policies** for information related to the accounting treatment of these off-balance sheet MPF Loan products.



Notes to Financial Statements

(Dollars in tables in millions except per share amounts unless otherwise indicated)

Coronavirus Disease 2019 (COVID-19) Forbearance

Section 4013 of the Coronavirus Aid, Relief and Economic Security Act (the “CARES Act”) provides temporary relief from the accounting and reporting requirements for troubled debt restructurings (TDRs) for certain loan modifications related to COVID-19. Specifically, the CARES Act provides that a qualifying financial institution may elect to suspend (1) the requirements under U.S. GAAP for certain loan modifications that would otherwise be categorized as a TDR, and (2) any determination that such loan modifications would be considered a TDR, including the related impairment for accounting purposes. Section 4013 of the CARES Act applies to any modification related to an economic hardship as a result of the COVID-19 pandemic, including a forbearance arrangement, an interest rate modification, a repayment plan, or any similar arrangement that defers or delays payment of principal or interest, that occurs during the period beginning on March 1, 2020 and ending on the earlier of December 31, 2020 or the date that is 60 days after the declaration of the national emergency related to the COVID-19 pandemic ends for a loan that was not more than 30 days past due as of December 31, 2019. On December 27, 2020, the Consolidated Appropriations Act, 2021, was signed into law, extending the applicable end period to the earlier of January 1, 2022, or 60 days following the termination of the national emergency related to the COVID-19 pandemic. We elected to suspend TDR accounting for eligible modifications under Section 4013 of the CARES Act. Such modifications to loans outstanding as of December 31, 2021 were \$43 million of which all but an immaterial amount are current. We resumed TDR accounting when the CARES Act expired on January 1, 2022.

Our servicers may grant a forbearance period to borrowers who have requested forbearance based on COVID-19-related difficulties regardless of the status of the loan at the time of the request. We continue to apply our accounting policy for past due loans and charge-offs to loans during the forbearance period whether it is formal or informal. A charge-off is not recognized when there is a presumption that we will collect the full contractual balance of the loan even if it is 180 days past due. The accrual status for loans under forbearance will be driven by the past due status of the loan as the legal terms of the contractual arrangement have not been modified.

The aging of our unpaid principal balance (UPB) of conventional loans in a forbearance plan as a result of COVID-19 are detailed in the following table.

As of	December 31, 2021	December 31, 2020
Current payment status	\$ 1	\$ 101
30 to 59 days past due	6	13
60 to 89 days past due	4	13
More than 90 days past due	51	128
Unpaid principal balance (UPB)	\$ 62	\$ 255
As a percent of our MPF Loans held in portfolio	1 %	3 %
On nonaccrual payment status	\$ 26	\$ 85

**Notes to Financial Statements****(Dollars in tables in millions except per share amounts unless otherwise indicated)****Note 8 – Allowance for Credit Losses**

See **Note 2 - Summary of Significant Accounting Policies** for further details regarding our accounting policies pertaining to credit losses that are applicable to each of our portfolio segments discussed below. Our credit analysis determines whether an asset is classified as adversely classified. An asset not adversely classified is supported by an appropriate credit analysis that documents the quality of a loan or an investment debt security, as well as ongoing analyses that demonstrate the obligor's continued repayment capacity. In such cases, the loan or investment security will not be adversely classified as substandard, doubtful, or loss. Adversely classified loans or investment debt securities are expected to have credit losses and thus will have an allowance.

We have the following portfolio segments:

Nongovernment related

- Member credit products (advances, letters of credit and other extensions of credit to borrowers)
- Conventional MPF Loans held in portfolio
- Interest Bearing Deposits, Federal Funds Sold and Securities Purchased Under Agreements to Resell
- Community First Fund (the Fund)
- Municipal Securities and Standby Bond Purchase Agreements

Member Credit Products

Member Credit Products encompass secured credit extensions to members including advances and letters of credit. The Credit Department monitors the financial performance of members at least quarterly, classifies credit extensions in accordance with our asset classification approach, monitors that our credit outstanding is sufficiently well collateralized and recommends credit reserves against individual credit exposures if needed.

We did not record an allowance for credit losses related to our advances nor a liability for our letters of credit as of the end of this reporting period based on the factors outlined below.

- None of our Member Credit Products portfolio was adversely classified.
- Loss mitigation techniques, which include, but are not limited to the following:
 - Credit monitoring which includes underwriting; credit limits; and ongoing collateral monitoring
 - Collateral policies or monitoring which include:
 - Rights to collateral, nature of the collateral and future changes to collateral.
 - Complying with regulatory requirements to fully collateralize member credit products, which incorporate the associated collateral haircut process. Collateral value represents the borrowing capacity assigned to pledged collateral and does not imply fair value.
- Our credit outstanding is sufficiently well collateralized as of the end of this reporting period - that is, the applicable agreement with a member requires that the member provide collateral value equal to its credit outstanding (unless we specifically require more for a particular member - for example, due to the member's risk rating based on our credit analyses of our members). Further, we require our members to pledge additional collateral if we perceive additional risk.
- Credit risk mitigation efforts such as collateral reviews to confirm the collateral meets eligibility requirements and ongoing monitoring to verify the sufficiency of collateral to mitigate exposure from member credit products;
- All payments due under the contractual terms have been received as of the end of this reporting period. In particular, no Member Credit Products were past due, on nonaccrual status, involved in a troubled debt restructuring, or otherwise considered impaired.

Our long history of no credit losses on advances and letters of credit along with loss mitigation techniques is sufficient to support a conclusion of zero allowance for credit losses as of the end of this reporting period.

**Notes to Financial Statements****(Dollars in tables in millions except per share amounts unless otherwise indicated)****Conventional MPF Loans Held in Portfolio**

We measure expected credit losses on conventional MPF Loans held in portfolio on a collective basis, pooling loans with similar risk characteristics. If an MPF Loan no longer shares risk characteristics with other loans in the pool (for example, the loan has become collateral dependent), it is removed from the pool and evaluated for expected credit losses on an individual basis.

The analysis on a pool basis includes consideration of various loan portfolio characteristics, such as past performance, current conditions, and reasonable and supportable forecasts of expected economic credit losses. The model projects cash flows of estimated expected credit losses over the remaining life of an MPF Loan, which also considers how credit enhancements mitigate those credit losses through the MPF credit sharing structure at a Master Commitment (MC) level. The model relies on a number of assumptions, with the primary ones being the actual implied forward rate curves from active markets and a housing price index (HPI) including:

- An HPI base case scenario
- The scenario at the Metropolitan Statistical Area (MSA) level
- A reasonable and supportable short-term forecast horizon of 12 months
- A transition period reverting to the long-term mean, which varies based on MSA (and on average is approximately four years)
- Model projections of prepayment, roll rate and loss severities are calibrated based on 12-month back-testing results

The model consists of two sub-models (a transition model and a cash flow model), with Monte Carlo simulators of transitional probabilities, as well as the ability to calibrate the model to unique aspects of our portfolio. The allowance excludes accrued interest receivable since we place the loan on nonaccrual when the loan becomes impaired and reverse interest income.

In addition to evaluating our model output, management included a qualitative adjustment to reflect the additional economic uncertainty from the impact of the COVID-19 pandemic.

The COVID-19 pandemic has resulted in significant disruptions and uncertainties in the U.S. labor market and overall economic conditions that have affected and are expected to continue to affect borrowers across our conventional MPF Loans, and significant judgment is required to estimate the impact and scope of the current economic environment, as well as its potential impact on borrower defaults and loss severities. In particular, macroeconomic conditions and forecasts regarding the impact and scope of the economic uncertainty caused by the COVID-19 pandemic are rapidly changing and evolving, and it is difficult to predict exactly how borrower behavior will be impacted by these changes in economic conditions. The effectiveness of government support, consumer relief, and enhanced unemployment benefits should act as mitigants to credit losses, but the extent of the mitigation impact remains uncertain as the course of the COVID-19 pandemic remains uncertain. We expect subsequent changes to this forecast and the related estimates to be reflected in the provision for credit losses in future periods.

Our estimates include forecasts of unemployment, home prices, roll rates, and severities; actual results could differ from the estimates and assumptions in our models. At this time, given the unknown duration of the pandemic and unprecedented nature of the availability of forbearances, we have determined loan payment status based on the borrower's last payment, and therefore do not assume any benefit associated with the possibility of the borrower completing the forbearance and becoming current on the loan.

MPF Risk Sharing Structure

Our allowance for credit losses considers the risk sharing structure of conventional MPF Loans held in portfolio, with credit losses absorbed in the following order:

- Borrower's equity.
- Primary mortgage insurance (PMI), if any.
- The PFI. We will withhold a PFI's scheduled performance credit enhancement fee in order to reimburse ourselves for any losses allocated to the First Loss Account (FLA) in instances where performance credit enhancement fees are applicable to the MC under which the loan was sold to us. We refer to these reimbursable credit enhancement fees as Recoverable CE Fees. The FLA functions as a tracking mechanism for our first layer of loss exposure before determining the point at which a PFI's CE Amount would cover the next layer of losses. Our FLA exposure varies by MPF Loan product type - that is, MPF Original, MPF 35, MPF 100, MPF 125, and MPF Plus.



Notes to Financial Statements

(Dollars in tables in millions except per share amounts unless otherwise indicated)

- We incur the next layer, or pro-rata with another MPF Bank in the case of a participation, up to the amount of the FLA.
- The PFI. The PFI's CE Amount, which may include proceeds from a provider of supplemental mortgage guaranty insurance (SMI).
- We will absorb any losses after the CE Amount has been exhausted, or pro-rata with another MPF Bank in the case of a participation.

The entire population of conventional MPF Loans is analyzed using the MPF Risk Sharing Structure at the MC level using roll rates and the Total Severity Rate. The credit risk analysis determines the degree to which layers of the MPF Risk Sharing Structure are available to recover losses on MPF Loans. PFIs deliver MPF Loans into pools designated by product specific MCs. The credit risk analysis is performed at an individual MC level since credit loss recovery from a PFI is MC- specific - that is, credit losses on a loan may be absorbed by the PFI only by its risk layer of the MC related to that loan.

We allocate losses on participation interests in MPF Loans amongst the participating MPF Banks pro-ratably based on their respective percentage participation interest in the related MC. The total losses resulting after factoring in the MPF Risk Sharing Structure are then calculated. The adjusted total losses are then split into credit losses and noncredit losses. A credit loss only consists of the loss resulting from the timing and amount of unpaid principal on an MPF Loan and does not include periodic expenses incurred during the time period in which an MPF Loan has become REO. Such periodic expenses are noncredit losses and they are directly expensed through the statement of income as incurred.

The following table presents the activity in our allowance for credit losses for MPF Loans for the three years ended December 31, 2021.

For the years ended December 31,	2021	2020	2019
Allowance for MPF credit losses beginning balance	\$ 3	\$ 1	\$ 1
MPF credit losses charged-off	(2)	(4)	—
Credit loss recovery	1	—	—
Provision for (reversal of) MPF for credit losses	3	6	—
Allowance for MPF credit losses ending balance	\$ 5	\$ 3	\$ 1


Notes to Financial Statements
(Dollars in tables in millions except per share amounts unless otherwise indicated)

The following tables summarize our conventional MPF Loans by our key credit quality indicators. See **Coronavirus Disease 2019 (COVID-19) Forbearance in Note 7 – MPF Loans Held in Portfolio** for more information on how the forbearance impacts the accounting for the below credit quality indicators.

As of	December 31, 2021			December 31, 2020		
	Conventional MPF Amortized Cost by Origination Year			Conventional MPF Amortized Cost by Origination Year		
	2017 to 2021	Prior to 2017	Total	2016 to 2020	Prior to 2016	Total
Past due 30-59 days	\$ 23	\$ 18	\$ 41	\$ 47	\$ 23	\$ 70
Past due 60-89 days	8	6	14	17	9	26
Past due 90 days or more	43	30	73	121	38	159
Past due	74	54	128	185	70	255
Current	7,883	987	8,870	7,984	912	8,896
Total outstanding	\$ 7,957	\$ 1,041	\$ 8,998	\$ 8,169	\$ 982	\$ 9,151

As of	December 31, 2021			December 31, 2020		
	Amortized Cost			Amortized Cost		
	Conventional	Government	Total	Conventional	Government	Total
In process of foreclosure	\$ 6	\$ 3	\$ 9	\$ 13	\$ 5	\$ 18
Serious delinquency rate	0.82 %	2.33 %	0.95 %	1.78 %	4.22 %	2.00 %
Past due 90 days or more and still accruing interest	\$ 30	\$ 19	\$ 49	\$ 48	\$ 17	\$ 65
Loans on nonaccrual status	47	—	47	120	—	120
Loans on nonaccrual status with no allowance for credit losses	11	—	11	21	—	21

Interest Bearing Deposits, Federal Funds Sold and Term Securities Purchased Under Agreements to Resell

We face credit risk on our unsecured short-term investment portfolio. We invest in unsecured overnight interest bearing deposits and federal funds sold in order to ensure the availability of funds to meet members' credit and liquidity needs. If the credit markets experience significant disruptions, it may increase the likelihood that one of our counterparties could experience liquidity or financial constraints that may cause them to become insolvent or otherwise default on their obligations to us.

We did not establish an allowance for credit losses for our unsecured overnight interest bearing deposits or federal funds sold as of December 31, 2021 since all federal funds sold were repaid and all unsecured overnight interest bearing deposits were returned according to their contractual terms.

We invest in overnight securities purchased under agreements to resell in order to ensure the availability of funds to meet members' liquidity and credit needs. Securities purchased under agreements to resell are secured by marketable securities held by a third party custodian and collateral is adjusted daily to ensure full collateral coverage. If the credit markets experience disruptions and as a result, one of our counterparties becomes insolvent or otherwise defaults on their obligations to us and the collateral is insufficient to cover our exposure, we may suffer a credit loss. We did not record credit losses for our securities purchased under an agreement to resell portfolio segment since the entire portfolio was not adversely classified and sufficient collateral existed as of December 31, 2021. We also did not establish an allowance for credit losses for overnight securities purchased under an agreement to resell as of December 31, 2021 since overnight securities purchased under agreements to resell were paid according to their contractual terms.



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Community First Fund (the Fund)

We created the Fund, which is structured as an on-balance sheet revolving pool of funds, with a mission to provide access to capital that supports economic development and affordable housing needs in the communities that our members serve in Illinois and Wisconsin. This is accomplished by providing long-term, unsecured loans to community development intermediary organizations (Partners). Partners to the Fund are unregulated and are often less sophisticated than our regulated members. We calculate a loss allowance based on expected loss rates on representative rated securities and average tenor of the outstanding portfolio. As of December 31, 2021 we had \$45 million in Fund loans outstanding, unchanged from \$45 million at December 31, 2020.

Under CECL, on January 1, 2020, we recorded a \$7 million allowances for credit losses on a basis of expected losses over the life of the loans, although as of that date and through December 31, 2021, all Fund loans were current and none were past due or on nonaccrual status.

The following table details our allowance for credit losses on Fund loans. As we had not incurred any credit losses under the pre-CECL accounting policy, we had no allowance prior to 2020.

For the year ended December 31,	2021	2020
Allowance for Fund loan credit losses beginning balance	\$ 7	\$ —
Adjustment for cumulative effect of accounting change	—	7
Provision for (reversal of) Fund loan for credit losses	(1)	—
Other	\$ 1	\$ —
Allowance for Fund loan credit losses ending balance	\$ 7	\$ 7

Municipal Securities and Standby Bond Purchase Agreements

We invest in municipal securities consisting of Housing Finance Authority (HFA) securities and off-balance sheet Standby Bond Purchase Agreements (SBPAs) with these authorities. Nearly all of the securities were classified as AFS, only an immaterial amount were HTM. We review the ratings of the HFA securities and the corresponding Moody's Default Balance to determine potential credit exposure. Our municipal securities are rated above BBB, and no credit losses were expected for HFA securities and SBPAs at December 31, 2021.

PLMBS

We sold our PLMBS during October 2020, as discussed in **Note 2 – Summary of Significant Accounting Policies**. We did not record any credit losses on these PLMBS in 2020 or 2019.



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U.S. Government related assets

- Investment debt securities issued or guaranteed by the U.S. Government
- Investment debt securities issued or guaranteed by U.S. Government Sponsored Enterprises
- U.S. Government guaranteed Federal Family Education Loan Program (FFELP)
- U.S. Government guaranteed MPF Loans held in portfolio

We have not established an allowance for credit losses for U.S. Government related assets, as we do not expect any losses on the basis of: 1) an explicit U.S. Government guarantee; 2) the assumption that an implicit U.S. Government guarantee exists; 3) a demonstration of the U.S. Government’s willingness to act on the implicit guarantee as evidenced by U.S. Government capitalization and support during past financial crisis events that resulted in no losses for investors in such securities; and 4) the assumption of the U.S. Government’s willingness and ability to act on the explicit and implicit guarantees in the future on the basis of the importance of federal agencies and GSEs in terms of promoting public policy and economic stability.

With respect to defaulted U.S. Government guaranteed MPF Loans, any losses incurred that are not recovered from the U.S. Government insurer or guarantor are absorbed by the MPF PFI servicer. Accordingly, credit losses are based on our assessment of our servicers' ability to absorb losses not covered by the applicable U.S. Government guarantee or insurance. We did not establish an allowance for credit losses on our Government Loans held in portfolio for the reporting periods presented based on our assessment that our servicers have the ability to absorb such losses. Further, no Government MPF Loans were placed on nonaccrual status or as troubled debt restructurings for the same reason.

Accrued interest receivable

We present accrued interest receivable separately for loans and HTM debt securities which are carried at amortized cost. We do not measure an allowance for credit losses on accrued interest receivables as we reverse accrued interest on a monthly basis when the loan is placed on nonaccrual.

The following table summarizes our accrued interest receivable by portfolio segment.

Financial instrument type	December 31, 2021	December 31, 2020
MPF Loans held in portfolio	\$ 45	\$ 48
HTM securities	4	5
Advances	34	37
Accrued interest receivable	\$ 83	\$ 90

The above table excludes accrued interest of \$54 million and \$53 million on AFS securities at December 31, 2021 and December 31, 2020. We elected under GAAP to include accrued interest in the carrying value of our AFS securities. See **Note 5 - Investment Debt Securities** for AFS carrying values.

**Notes to Financial Statements****(Dollars in tables in millions except per share amounts unless otherwise indicated)****Note 9 – Derivatives and Hedging Activities**

Refer to **Note 2 - Summary of Significant Accounting Policies** for our accounting policies for derivatives.

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 do not trade derivatives for speculative purposes. We enter into derivative transactions through either of the following:

- A bilateral agreement with an individual counterparty for over-the-counter derivative transactions.
- Clearinghouses classified as DCOs through FCMs, which are clearing members of the DCOs, for cleared derivative transactions.

Managing Interest Rate Risk

We use fair value hedges to manage our exposure to changes in the fair value of (1) a recognized asset or liability or (2) an unrecognized firm commitment, attributable to changes in a benchmark interest rate, such as SOFR. Our cash flow hedge strategy is to hedge the variability in the total proceeds received from rolling forecasted zero-coupon discount note issuance, attributable to changes in the benchmark interest rate, by entering into pay-fixed interest rate swaps. We are not using the cash flow hedge strategy for new transactions at this time, as we use LIBOR as the benchmark interest rate for cash flow hedges and we are not entering into new LIBOR-linked transactions.

We may elect the fair value option for financial instruments, such as advances, MPF Loans held for sale, and consolidated obligation discount notes and bonds, in cases where hedge accounting treatment may not be achieved due to the inability to meet the hedge effectiveness testing criteria, or in certain cases where we wish to mitigate the risk associated with selecting the fair value option for other instruments. We may also use economic hedges when hedge accounting is not permitted or hedge effectiveness is not achievable.

Managing Credit Risk on Derivative Agreements

Over-the-counter (bilateral) Derivative Transactions: We are subject to credit risk due to the risk of nonperformance by counterparties to our derivative agreements. For bilateral derivative agreements, the degree of counterparty risk depends on the extent to which master netting arrangements, collateral requirements and other credit enhancements are included in such contracts to mitigate the risk. We manage counterparty credit risk through credit analysis, collateral requirements and adherence to the requirements set forth in our policies and FHFA regulations. We require collateral agreements on all over-the-counter derivatives. Additionally, collateral related to over-the-counter derivatives with member institutions includes collateral assigned to us, as evidenced by a written security agreement, and which may be held by the member institution for our benefit. As of December 31, 2021, based on credit analyses and collateral requirements, we have not recorded a credit loss on our over-the-counter derivative agreements. See **Note 15 - Fair Value** for discussion regarding our fair value methodology for over-the-counter derivative assets and liabilities, including an evaluation of the potential for the fair value of these instruments to be affected by counterparty credit risk.

For nearly all of our bilateral derivative transactions executed prior to March 1, 2017, and for all transactions entered into on or after March 1, 2017, our bilateral derivative agreements are fully collateralized with a zero unsecured threshold in accordance with variation margin requirements issued by the U.S. federal bank regulatory agencies and the Commodity Futures Trading Commission (CFTC). We pledged no investment securities on our bilateral derivative transactions (that can be sold or repledged by our counterparty) as of December 31, 2021.

For certain transactions executed prior to March 1, 2017, we may be required to post net additional collateral with our counterparties if there is deterioration in our credit rating. If our credit rating had been lowered from its current rating to the next lower rating by a major credit rating agency, such as Standard and Poor's or Moody's, the amount of collateral we would have been required to deliver would have been immaterial at December 31, 2021.

Cleared Derivative Transactions: Cleared derivative transactions are subject to variation and initial margin requirements established by the DCO and its clearing members. Variation margin payments are characterized as settlement of a derivative's mark-to-market exposure and not as collateral against the derivative's mark-to-market exposure. See **Note 1 - Background and Basis of Presentation** and **Note 2 - Summary of Significant Accounting Policies** for further discussion. We post our initial margin collateral payments and make variation margin settlement payments through our FCMs, on behalf of the DCO, which could expose us to institutional credit risk in the event that the FCMs or the DCO fail to meet their obligations. Clearing derivatives through a DCO mitigates counterparty credit risk exposure because the DCO is substituted for individual counterparties and variation margin settlement payments are made daily through the FCMs for changes in the value of cleared



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derivatives. The DCO determines initial margin requirements for cleared derivatives. We pledged \$645 million of investment securities (that can be sold or repledged) as part of our initial margin related to cleared derivative transactions at December 31, 2021. Additionally, an FCM may require additional initial margin to be posted based on credit considerations, including but not limited to, if our credit rating downgrades. We had no requirement to post additional initial margin by our FCMs at December 31, 2021.

The following table presents details on the notional amounts, and cleared and bilateral derivative assets and liabilities on our **Statements of Condition**. The netting adjustment amount includes cash collateral (either received or paid by us) and related accrued interest in cases where we have a legal right, by contract (e.g., master netting agreement) or otherwise, to offset cash flow obligations between us and our counterparty into a single net payable or receivable.

As of	December 31, 2021			December 31, 2020		
	Notional Amount	Derivative Assets	Derivative Liabilities	Notional Amount	Derivative Assets	Derivative Liabilities
Derivatives in hedge accounting relationships-						
Interest rate contracts	\$ 70,321	\$ 58	\$ 466	\$ 39,493	\$ 65	\$ 729
Derivatives not in hedge accounting relationships-						
Interest rate contracts	2,772	10	59	11,265	46	141
Mortgage delivery commitments	625	2	2	2,831	5	7
Other	148	—	—	257	—	1
Derivatives not in hedge accounting relationships	3,545	12	61	14,353	51	149
Gross derivative amount before netting adjustments and cash collateral	\$ 73,866	70	527	\$ 53,846	116	878
Netting adjustments and cash collateral		(56)	(495)		(111)	(187)
Derivatives on Statements of Condition		\$ 14	\$ 32		\$ 5	\$ 691
	Cash Collateral			Cash Collateral		
Cash collateral posted and related accrued interest	\$ 447			\$ 84		
Cash collateral received and related accrued interest	\$ 8			\$ 8		

The following table presents the noninterest income - derivatives and economic hedging activities as presented in the **Statements of Income**.

For the years ending December 31,	2021	2020	2019
Economic hedges -			
Interest rate contracts	\$ 26	\$ (144)	\$ (25)
Other	(9)	(9)	3
Economic hedges	17	(153)	(22)
Variation margin on daily settled cleared derivatives	—	5	13
Noninterest income - Derivatives and hedging activities	\$ 17	\$ (148)	\$ (9)



Notes to Financial Statements

(Dollars in tables in millions except per share amounts unless otherwise indicated)

The following tables present details regarding the offsetting of our cleared and bilateral derivatives on our **Statements of Condition**. The netting adjustment amount includes cash collateral (either received or paid by us) and related accrued interest in cases where we have a legal right, by contract (e.g., master netting agreement) or otherwise, to offset cash flow obligations between us and our counterparty into a single net payable or receivable.

	Derivative Assets					
	As of December 31, 2021			As of December 31, 2020		
	Bilateral	Cleared	Total	Bilateral	Cleared	Total
Derivatives with legal right of offset -						
Gross recognized amount	\$ 61	\$ 7	\$ 68	\$ 60	\$ 51	\$ 111
Netting adjustments and cash collateral	(49)	(7)	(56)	(60)	(51)	(111)
Derivatives with legal right of offset - net	12	—	12	—	—	—
Derivatives without legal right of offset	2	—	2	5	—	5
Derivatives on Statements of Condition	14	—	14	5	—	5
Net amount	\$ 14	\$ —	\$ 14	\$ 5	\$ —	\$ 5

	Derivative Liabilities					
	As of December 31, 2021			As of December 31, 2020		
	Bilateral	Cleared	Total	Bilateral	Cleared	Total
Derivatives with legal right of offset -						
Gross recognized amount	\$ 495	\$ 30	\$ 525	\$ 812	\$ 59	\$ 871
Netting adjustments and cash collateral	(487)	(8)	(495)	(136)	(51)	(187)
Derivatives with legal right of offset - net	8	22	30	676	8	684
Derivatives without legal right of offset	2	—	2	7	—	7
Derivatives on Statements of Condition	10	22	32	683	8	691
Less:						
Noncash collateral received or pledged and cannot be sold or repledged	—	22	22	668	8	676
Net amount	\$ 10	\$ —	\$ 10	\$ 15	\$ —	\$ 15

At December 31, 2021 and December 31, 2020 we had \$622 million and \$616 million of additional credit exposure due to pledging of noncash collateral to our counterparties, which exceeded our net derivative position for combined cleared and bilateral derivatives.


Notes to Financial Statements
(Dollars in tables in millions except per share amounts unless otherwise indicated)
Fair Value Hedges

The following table presents our fair value hedging results by the type of hedged item. We had no net gain or loss on hedged firm commitments that no longer qualified as a fair value hedge. Changes in fair value of the derivative and the hedged item attributable to the hedged risk for designated fair value hedges are recorded in net interest income in the same line as the earnings effect of the hedged item. Gains (losses) on derivatives include unrealized changes in fair value, as well as net interest settlements. The line for Other relates to discontinued closed fair value hedges on MPF Loans held for portfolio that are being amortized over the remaining life of the loans. As of December 31, 2021 we did not have any active fair value hedges on our MPF Loans.

For the years ending December 31,	Gain (Loss) on Derivative	Gain (Loss) on Hedged Item	Amount Recorded in Net Interest Income
2021			
Available-for-sale debt securities	\$ 478	\$ (757)	\$ (279)
Advances	325	(533)	(208)
Consolidated obligation bonds	(180)	409	229
Other	—	(1)	(1)
Total	\$ 623	\$ (882)	\$ (259)
2020			
Available-for-sale debt securities	\$ (1,046)	\$ 864	\$ (182)
Advances	(632)	416	(216)
Consolidated obligation bonds	271	(148)	123
Other	—	1	1
Total	\$ (1,407)	\$ 1,133	\$ (274)
2019			
Available-for-sale debt securities	\$ (552)	\$ 500	\$ (52)
Advances	(275)	305	30
Consolidated obligation bonds	228	(281)	(53)
Other	—	(1)	(1)
Total	\$ (599)	\$ 523	\$ (76)

The following table presents the cumulative basis adjustments on hedged items designated as fair value hedges and the related amortized cost of the hedged items.

	Amortized cost of hedged asset/ liability	Basis adjustments active hedges included in amortized cost	Basis adjustments discontinued hedges included in amortized cost	Total amount of fair value hedging basis adjustments
As of December 31, 2021				
Available-for-sale securities	\$ 14,412	\$ 335	\$ 421	\$ 756
Advances	19,720	225	2	227
Consolidated obligation bonds	36,335	(192)	(16)	(208)
Other	265	—	6	6
As of December 31, 2020				
Available-for-sale securities	\$ 13,425	\$ 1,513	\$ —	\$ 1,513
Advances	17,164	756	3	759
Consolidated obligation bonds	10,327	222	(22)	200
Other	354	—	9	9



Notes to Financial Statements

(Dollars in tables in millions except per share amounts unless otherwise indicated)

Cash Flow Hedges

For cash flow hedges the entire change in the fair value of the hedging instrument is recorded in AOCI and reclassified into earnings (net interest income) as the hedged item affects earnings. Hedge effectiveness testing is performed to determine whether hedge accounting is qualified.

We are exposed to the variability in the total net proceeds received from forecasted zero-coupon discount note issuances, which is attributable to changes in the benchmark interest rate. As a result, we enter into cash flow hedge relationships utilizing derivative agreements to hedge the total net proceeds received from our "rolling" forecasted zero-coupon discount note issuances attributable to changes in the benchmark interest rate. The maximum length of time over which we are hedging this exposure is 8 years. We reclassify amounts in AOCI into our **Statements of Income** in the same periods during which the hedged forecasted transaction affects our earnings. We had no discontinued cash flow hedges for the periods presented. The deferred net gains (losses) on derivative instruments in AOCI that are expected to be reclassified to earnings during the next twelve months were immaterial as of December 31, 2021. We are not using the cash flow hedge strategy for new transactions at this time, as we use LIBOR as the benchmark interest rate for cash flow hedges and we are not entering into new LIBOR-linked transactions.

The following table presents our cash flow hedging results by type of hedged item. Additionally, the table indicates where cash flow hedging results are classified in our **Statements of Income**. In this regard, the **Amount Reclassified from AOCI into Net Interest Income** column below includes the following:

- The amortization of closed cash flow hedging adjustments, which are reclassified from AOCI into the interest income/expense line item of the respective hedged item type.
- The effect of net interest settlements attributable to open derivative hedging instruments, which are initially recorded in AOCI and are reclassified to the interest income/expense line item of the respective hedged item type.

For the years ending December 31,	Gross Amount Initially Recognized in AOCI	Amount Reclassified from AOCI into Net Interest Income
2021		
Discount notes	\$ 35	\$ (18)
Bonds	—	(1)
Total	\$ 35	\$ (19)
2020		
Discount notes	\$ (48)	\$ (20)
Bonds	—	(1)
Total	\$ (48)	\$ (21)
2019		
Discount notes	\$ (33)	\$ (25)
Bonds	—	(1)
Total	\$ (33)	\$ (26)



Notes to Financial Statements

(Dollars in tables in millions except per share amounts unless otherwise indicated)

Note 10 – Consolidated Obligations

The FHLBs issue consolidated obligations through the Office of Finance as their agent. Consolidated obligations consist of discount notes and consolidated obligation bonds. Consolidated discount notes are issued to raise short-term funds, are issued at less than their face amount and redeemed at par value when they mature. The maturity of consolidated obligation bonds may range from less than one year to over 20 years, but they are not subject to any statutory or regulatory limits on maturity.

The following table presents our consolidated obligation discount notes for which we are the primary obligor. All are due in one year or less.

As of	December 31, 2021	December 31, 2020
Consolidated obligation discount notes - carrying amount	\$ 24,563	\$ 48,643
Consolidated obligation discount notes - principal amount	24,565	48,654
Weighted Average Interest Rate	0.05 %	0.10 %

The following table presents the remaining life of our consolidated obligation bonds by contractual maturity and the related weighted average interest rate, for which we are the primary obligor, including callable bonds that are redeemable in whole, or in part, at our discretion on predetermined call dates.

As of December 31, 2021	Contractual Maturity	Weighted Average Interest Rate	By Maturity or Next Call Date
Due in one year or less	\$ 22,965	0.52 %	\$ 52,937
One to two years	7,086	1.04 %	6,031
Two to three years	8,819	0.90 %	2,010
Three to four years	3,788	0.83 %	977
Four to five years	11,183	0.94 %	1,078
Thereafter	9,762	1.68 %	570
Total par value	\$ 63,603	0.90 %	\$ 63,603

The following table presents consolidated obligation bonds outstanding by call feature.

As of	December 31, 2021	December 31, 2020
Noncallable	\$ 24,516	\$ 35,075
Callable	39,087	7,397
Par value	63,603	42,472
Fair value hedging adjustments	(208)	200
Other adjustments	(22)	(2)
Consolidated obligation bonds	\$ 63,373	\$ 42,670



Notes to Financial Statements

(Dollars in tables in millions except per share amounts unless otherwise indicated)

Consolidated obligations are issued with either fixed or floating rate payment terms that may use a variety of indices for interest rate resets (e.g. SOFR). Additionally, both fixed-rate bonds and floating-rate bonds may contain an embedded derivative, such as a call feature or complex coupon payment terms, if requested by investors. When such consolidated obligations are issued, we may concurrently enter into an interest rate swap containing offsetting features that effectively convert the terms of the bond to a variable-rate bond tied to an index or a fixed-rate bond.

Consolidated obligation bonds, beyond having fixed-rate or floating-rate payment terms, may also have the following broad terms regarding either principal repayment or coupon payment terms:

Step-Up Bonds and Step-Down Bonds - Bonds that pay interest at increasing or decreasing fixed rates for specified intervals over their life. These bonds are callable at our option on the step-up or step-down dates.

The following table presents interest rate payment terms for consolidated obligation bonds for which we are primary obligor at the dates indicated.

As of	December 31, 2021	December 31, 2020
Fixed-rate	\$ 40,842	\$ 17,377
Variable-rate	18,320	24,592
Step-up	4,441	503
Par value	\$ 63,603	\$ 42,472

The following table summarizes the consolidated obligations of the FHLBs and those for which we are the primary obligor. We did not accrue a liability for our joint and several liability related to the other FHLBs' share of the consolidated obligations as of December 31, 2021 and December 31, 2020. Refer to **Note 16 - Commitments and Contingencies** for further details.

Par values as of	December 31, 2021			December 31, 2020		
	Bonds	Discount Notes	Total	Bonds	Discount Notes	Total
FHLB System total consolidated obligations	\$ 441,936	\$ 210,926	\$ 652,862	\$ 471,919	\$ 274,853	\$ 746,772
FHLB Chicago as primary obligor	63,603	24,565	88,168	42,472	48,654	91,126
As a percent of the FHLB System	14 %	12 %	14 %	9 %	18 %	12 %

**Notes to Financial Statements****(Dollars in tables in millions except per share amounts unless otherwise indicated)****Note 11 - Affordable Housing Program**

The Financial Institutions Reform, Recovery and Enforcement Act of 1989 (FIRREA) contains provisions for the establishment of an Affordable Housing Program (AHP) by each FHLB. We provide subsidies in the form of direct grants for members that use the funds for qualifying affordable housing projects. Annually, the FHLB System must set aside for their AHPs, in the aggregate, the greater of \$100 million or 10% of the current year's income subject to assessments (e.g., excluding any interest expense related to MRCS). The exclusion of interest expense related to MRCS is a regulatory calculation that was established by the FHFA. Interest expense related to MRCS for 2021, 2020, and 2019, was \$12 million, \$15 million, and \$16 million. We accrue AHP expense monthly based on our regulatory income subject to assessments and recognize an AHP liability. As subsidies are provided, the AHP liability is reduced.

The following table summarizes the changes in the AHP payable for the periods indicated.

For the years ended December 31,	2021	2020	2019
AHP balance at beginning of year	\$ 89	\$ 84	\$ 84
AHP expense accrual	32	43	35
Cash disbursements for AHP	(36)	(38)	(35)
AHP balance at end of year	\$ 85	\$ 89	\$ 84

**Notes to Financial Statements****(Dollars in tables in millions except per share amounts unless otherwise indicated)****Note 12 – Capital and Mandatorily Redeemable Capital Stock (MRCS)**

Under our Capital Plan our stock consists of two sub-classes of stock, Class B1 activity stock and Class B2 membership stock (together, Class B stock), both with a par value of \$100 and redeemable on five years' written notice, subject to certain conditions. Under the Capital Plan, each member is required to own capital stock in an amount equal to the greater of a membership stock requirement or an activity stock requirement. All stock that supports a member's activity stock requirement with the Bank is classified as Class B1 activity stock. Any additional amount of stock necessary for the total amount of Class B stock held to equal a member's minimum investment amount will be classified as Class B2 membership stock. Members purchase Class B2 membership stock to satisfy their membership stock requirement with the Bank. Stock held in excess of a member's minimum investment requirement is classified as Class B2 excess capital stock.

Members that withdraw from membership must wait at least five years after their membership was terminated and all of their capital stock was redeemed or repurchased before being readmitted to membership in any FHLB.

Under our Capital Plan, any dividend declared on Class B1 shares must be greater than or equal to the dividend declared on Class B2 shares for the same period. We have paid an enhanced dividend on Class B1 activity stock since the fourth quarter of 2013. Future dividend payments remain subject to declaration by our Board and will depend on future operating results, our Retained Earnings and Dividend Policy and any other factors the Board determines to be relevant.

Minimum Capital Requirements

We are subject by FHFA regulation to the following three capital requirements:

- Total regulatory capital ratio;
- Leverage capital ratio; and
- Risk-based capital.

For purposes of calculating our compliance with these minimum capital requirements in effect in 2021:

- "Permanent capital" includes our retained earnings plus the amount paid in for our Class B stock, including Class B stock classified as mandatorily redeemable.
- "Total capital" means the sum of (1) our permanent capital plus (2) any general allowance for losses.
- "Total assets" are the total assets determined in accordance with GAAP.

Permanent capital and total capital do not include accumulated other comprehensive income (loss).

Total Regulatory Capital Ratio. We must maintain a minimum ratio of total capital to total assets of at least 4.00%. For safety and soundness reasons, this ratio may be increased by the FHFA with respect to an individual FHLB.

Leverage Capital Ratio. We must also maintain a leverage ratio of total capital to total assets of at least 5.00%. For purposes of determining this leverage ratio, total capital is computed by multiplying our permanent capital by 1.5 and adding to this product all other components of total capital. This ratio also may be increased by the FHFA with respect to an individual FHLB.

Risk-Based Capital. Under the risk-based capital requirement, we must maintain permanent capital in an amount at least equal to the sum of our: (i) credit risk capital requirement, (ii) market risk capital requirement, and (iii) operational risk capital requirement; all of which are calculated in accordance with the rules and regulations of the FHFA.



Notes to Financial Statements
(Dollars in tables in millions except per share amounts unless otherwise indicated)

As of	December 31, 2021		December 31, 2020	
	Requirement	Actual	Requirement	Actual
Total regulatory capital	\$ 3,878	\$ 6,656	\$ 4,014	\$ 6,361
Total regulatory capital ratio	4.00 %	6.87 %	4.00 %	6.34 %
Leverage capital	\$ 4,848	\$ 9,984	\$ 5,018	\$ 9,541
Leverage capital ratio	5.00 %	10.30 %	5.00 %	9.51 %
Risk-based capital	\$ 1,297	\$ 6,656	\$ 1,587	\$ 6,361

Total regulatory capital and leverage capital includes mandatorily redeemable capital stock (MRCS) but does not include AOCI. Under the FHFA regulation on capital classifications and critical capital levels for the FHLBs, we are adequately capitalized.

Additionally, an FHFA Advisory Bulletin sets forth guidance for each FHLB to maintain a ratio of at least two percent of capital stock to total assets. In accordance with this guidance, the FHFA considers the proportion of capital stock to assets, measured on a daily average basis at month end, when assessing each FHLB's capital management practices.

Capital Concentration

The following members (including any successor) had regulatory capital stock exceeding 10% of our total regulatory capital stock outstanding (which includes MRCS).

As of December 31, 2021	Regulatory Capital Stock Outstanding	% of Total Outstanding	Amount of Which is Classified as a Liability (MRCS)
JPMorgan Chase Bank NA	^a \$ 245	10.2 %	\$ 245

^a Effective February 19, 2021, we terminated One Mortgage Partners Corp.'s ("OMP") membership in connection with the FHFA rule that made captive insurance companies ineligible for FHLB membership. In December 2021, OMP merged with and into its parent company, JPMorgan Chase Bank NA.

Mandatorily Redeemable Capital Stock (MRCS)

The following table shows our MRCS redemption terms by year payable.

As of December 31, 2021	Amount
Two to three years	2
Four to five years	245 ^a
Mandatorily Redeemable Capital Stock	\$ 247

^a Represents the redemption period of Class B stock held by former captive insurance company members which began immediately upon their terminations of membership on February 19, 2021, in accordance with the FHFA Rule on FHLB membership. However, based on our current excess stock repurchase practices, we expect to repurchase nearly all of their excess stock prior to the end of the redemption period.

Repurchase of Excess Capital Stock

Members may request repurchase of excess stock on any business day. Additionally, on a monthly basis, the Bank repurchases excess capital stock held by each member or former member that exceeds certain limits set by the Bank. All repurchases of excess capital stock, including any future monthly repurchases, will continue until otherwise announced, but remain subject to our regulatory requirements, certain financial and capital thresholds, and prudent business practices.

**Notes to Financial Statements****(Dollars in tables in millions except per share amounts unless otherwise indicated)****Dividends**

Our ability to pay dividends is subject to the FHLB Act and FHFA regulations. On January 28, 2022 our Board of Directors declared a 5.00% cash dividend (annualized) for Class B1 activity stock and a 2.00% cash dividend (annualized) for Class B2 membership stock based on our preliminary financial results for the fourth quarter of 2021. This dividend totaled \$25 million (recorded as \$22 million dividends on capital stock and \$3 million interest expense on mandatorily redeemable capital stock) and was paid on February 15, 2022. Any future dividend payment remains subject to declaration by the Board and will depend on future operating results, our Retained Earnings and Dividend Policy and any other factors the Board determines to be relevant.

Joint Capital Enhancement Agreement

All of the FHLBs, including us, entered into a Joint Capital Enhancement Agreement (as later amended, the JCE Agreement) and implemented it in our respective capital plans. The intent of the JCE Agreement is to enhance the capital position of each FHLB by allocating that portion of each FHLB's earnings to a separate restricted retained earnings account at that FHLB.

The JCE Agreement provides that each FHLB is required to contribute 20% of its net income each quarter to a restricted retained earnings account until the balance of that account equals at least 1% of that FHLB's average balance of outstanding consolidated obligations for the previous quarter.

Additionally, the JCE Agreement provides that amounts in restricted retained earnings in excess of 150% of an FHLB's restricted retained earnings minimum (i.e., one percent of that FHLB's total consolidated obligations calculated as of the last day of each calendar quarter) may be released from restricted retained earnings.

Although restricted retained earnings under the JCE Agreement are included in determining whether we have attained the retained earnings target under the Bank's Retained Earnings and Dividend Policy, these restricted retained earnings will not be available to pay dividends. We do not believe that the requirement to contribute 20% of our future net income to a restricted retained earnings account under the JCE Agreement will have an impact on our ability to pay dividends except in the most extreme circumstances. There is a provision in the JCE Agreement that if, at any time, our restricted retained earnings were to fall below the required level, we would only be permitted to pay dividends out of (1) current net income not required to be added to our restricted retained earnings and (2) retained earnings that are not restricted.

FICO Dissolution

The Competitive Equality Banking Act of 1987 was enacted in August 1987, which, among other things, provided for the recapitalization of the Federal Savings and Loan Insurance Corporation through a newly-chartered entity, the Financing Corporation (FICO). The capitalization of FICO was provided by capital distributions from the FHLBs to FICO in exchange for FICO nonvoting capital stock. Capital distributions were made by the FHLBs in 1987, 1988 and 1989 that aggregated to \$680 million. Upon passage of the Financial Institutions Reform, Recovery and Enforcement Act of 1989, the FHLBs' previous investment in capital stock of FICO was determined to be non-redeemable and the FHLBs charged-off their prior capital distributions to FICO directly against retained earnings.

In connection with the dissolution of FICO in July 2020, FICO determined that excess funds aggregating to \$200 million were available for distribution to its stockholders, the FHLBs, and FICO distributed these funds to the FHLBs in June 2020. Specifically, our partial recovery of prior capital distribution was \$19 million, which was determined based on our share of the \$680 million originally contributed to FICO. We treated the receipt of these funds as a return of our investment in FICO capital stock, and therefore as a partial recovery of the prior capital distributions we made to FICO in 1987, 1988, and 1989. These funds have been credited to unrestricted retained earnings in our **Statements of Capital** on page F-7 and in Other Financing Activities in our **Statements of Cash Flows** on page F-9.


Notes to Financial Statements

(Dollars in tables in millions except per share amounts unless otherwise indicated)

Note 13 - Accumulated Other Comprehensive Income (Loss)

The following table summarizes the gains (losses) in AOCI for the reporting periods indicated.

For the years ended December 31,	Net Unrealized - Available- for-sale Debt Securities	Noncredit OTTI - Held-to- maturity Debt Securities	Net Unrealized - Cash Flow Hedges	Post- Retirement Plans	AOCI
2021					
Beginning balance	\$ 292	\$ —	\$ (65)	\$ (20)	\$ 207
Other comprehensive income before reclassification - recorded to the statements of condition	75	—	35	(1)	109
Amounts reclassified in period to Statements of Income:					
Net interest income			19		19
Noninterest income	(1)	—			(1)
Noninterest expense				8	8
Ending balance	<u>\$ 366</u>	<u>\$ —</u>	<u>\$ (11)</u>	<u>\$ (13)</u>	<u>\$ 342</u>
2020					
Beginning balance	\$ 104	\$ (85)	\$ (38)	\$ (10)	\$ (29)
Other comprehensive income before reclassification - recorded to the statements of condition	194	85	(48)	(19)	212
Amounts reclassified in period to Statements of Income:					
Net interest income			21		21
Noninterest income	(6)	—			(6)
Noninterest expense				9	9
Ending balance	<u>\$ 292</u>	<u>\$ —</u>	<u>\$ (65)</u>	<u>\$ (20)</u>	<u>\$ 207</u>
2019					
Beginning balance	\$ 211	\$ (114)	\$ (31)	\$ (11)	\$ 55
Other comprehensive income before reclassification - recorded to the statements of condition	(107)	29	(33)	(2)	(113)
Amounts reclassified in period to Statements of Income:					
Net interest income	—	—	26		26
Noninterest expense				3	3
Ending balance	<u>\$ 104</u>	<u>\$ (85)</u>	<u>\$ (38)</u>	<u>\$ (10)</u>	<u>\$ (29)</u>



Notes to Financial Statements

(Dollars in tables in millions except per share amounts unless otherwise indicated)

Note 14 - Employee Retirement Plans

We participate in the Pentegra Defined Benefit (DB) Plan for Financial Institutions (the Pension Plan), a multiple employer, tax-qualified noncontributory defined-benefit pension plan. The Pension Plan year runs from July 1 to June 30. Substantially all of our officers and employees participate in the Pension Plan. Our risks in participating in the Pension Plan are as follows:

- The Pension Plan is a single plan under Internal Revenue Code Section 413(c) and, as a result, all of the assets stand behind all of the liabilities. Accordingly, contributions made by us may be used to provide benefits to participants of other participating employers.
- If a participating employer withdraws from the Pension Plan, the unfunded obligations of the Pension Plan may be borne by the remaining participating employers, which would include us.
- If we choose to withdraw from the Pension Plan, we may be required to pay the Pension Plan an amount based on the underfunded status of the Pension Plan, referred to as a withdrawal liability.

Relevant information concerning the Pension Plan is outlined below:

- The Pension Plan's Employer Identification Number is 13-5645888 and the Plan Number is 333.
- A single Form 5500 is filed on behalf of all employers who participate in the Pension Plan. A Form 5500 was not available for the Pension Plan year ended June 30, 2021, as of the date of filing of this Form 10-K filing.
- Our contribution for the year ending December 31, 2021 was not more than 5% of the total contributions to the Pension Plan. Our contributions for the years ending December 31, 2020 and December 31, 2019 were more than 5% of the total contributions to the Pension Plan.
- The Pension Plan is not a collective bargaining agreement.
- We did not pay any surcharges to the Pension Plan.
- There was no funding improvement plan or rehabilitation plan implemented, nor is any such plan pending.

Contributions to the Pension Plan include both mandatory amounts required under federal law and discretionary contributions to improve the Plan's funded status. The Moving Ahead for Progress in the 21st Century Act ("MAP-21"), enacted in 2012, provided temporary relief for employers like the Bank who participate in plans for which funding contributions are determined under the Employee Retirement Income Security Act of 1974. Specifically, MAP-21 allows the Bank to use a 25-year average discount rate within an upper and lower range rather than the current discount rate when determining its minimum funding obligation. In effect, the discount rate under MAP-21 is higher than the current discount rate, which reduces the Bank's minimum funding obligation and expense recognized into earnings. This is due to the inverse relationship between the discount rate and the pension liability and expense - that is, the higher the discount rate, the lower the liability and expense amount. This discount rate relief was extended in 2014 when the Highway and Transportation Funding Act ("HATFA") was signed into law. The discount rate relief was extended again through the year 2020 (with graduated increases each year thereafter until expiring in 2023) when the Bipartisan Budget Act of 2015 ("BBA 2015") was enacted in 2015. Additional discount rate relief was extended in 2021 through the American Rescue Plan of 2021 ("ARPA").

The following table provides details on our multiemployer Pension Plan. The funded status is calculated as the market value of plan assets divided by the funding target and reflects contributions received through the plan year ended June 30.

Pension Plan	2021	2020	2019
Net pension cost (minimum required contribution) including administrative fees, charged to compensation and benefits expense for the years ended December 31,	\$ 4	\$ 18	\$ 9
Prepaid pension contributions, in other assets, as of December 31,	64	67	22
Plan funded status as of the plan years ended June 30,	130 %	108 %	109 %
Our portion of plan funded status as of the plan years ended June 30,	180 %	145 %	110 %

In addition to the above multiemployer Pension Plan we have a tax-qualified defined contribution 401(k) plan, an unfunded non-qualified deferred compensation plan, and a postretirement health and life insurance benefit plan. The financial amounts related to these plans were not material.

**Notes to Financial Statements****(Dollars in tables in millions except per share amounts unless otherwise indicated)****Note 15 - Fair Value**

Fair value represents the exit price that we would receive to sell an asset or pay to transfer a liability in an orderly transaction with a market participant at the measurement date. Refer to **Note 2 - Summary of Significant Accounting Policies** for our fair value measurement policies.

Valuation Techniques and Significant Inputs

Outlined below is a description of our valuation techniques and significant assumptions.

Assets for which fair value approximates carrying amount. Due to the short-term nature and negligible credit risk, we use the carrying amount to estimate fair value of cash and due from banks, interest bearing deposits, federal funds sold, securities purchased under agreements to resell, and accrued interest receivable.

Investment debt securities—non-MBS and MBS. We use one of the valuation approaches outlined below to determine fair value.

- Prices received from third party pricing vendors provided we believe their pricing models are consistent with what other market participants would use; or
- An income approach based on a market-observable interest rate curve adjusted for a spread.

The significant inputs and assumptions utilized by third party pricing vendors in their proprietary pricing models are derived as outlined below for these securities.

- Market observable sources (Level 1), which include, but are not limited to, benchmark yields, reported trades, broker/dealer quotes, issuer spreads, benchmark securities, bids, offers, and other market related data, for securities that are actively traded.
- Available market observable inputs (Level 2) rather than quoted market prices are used when valuing securities primarily comprised of our portfolio of government, mortgage and asset-backed securities. Available market information is used, such as benchmark curves, benchmarking of like securities, sector groupings, and matrix pricing for fixed income securities that do not trade on a daily basis.
- Significant unobservable inputs (Level 3) for securities. Valuations are derived from techniques that use significant assumptions not observable in the market, which include pricing models, discounted cash flow models, or similar techniques.

We annually review the multiple third party pricing vendors we utilize to measure the fair value of our agency MBS and FFELP ABS. Our annual review includes, but is not limited to, the following:

- Confirming and further augmenting our understanding of the vendors' pricing processes, methodologies and control procedures.
- Reviewing, if available, the vendors' independent auditors' reports to assess the vendors' internal controls over their valuation processes.
- Assessing our third party vendors' proprietary pricing models for reasonableness, including the underlying inputs and assumptions utilized. This is achieved by sampling securities across different asset classes and utilizing deep dive analyses since we do not have direct access to their propriety pricing models.
- Using our internal model price in cases where a fair value is not provided by any third party pricing vendor to measure the fair value. In this process, we compare prices for comparable securities provided by third party pricing vendors to our internal pricing model to test for reasonableness.
- Using our third party vendor's pricing challenge process, which is in place for all security valuations. The pricing challenge process facilitates identification and resolution of potentially erroneous prices.

**Notes to Financial Statements****(Dollars in tables in millions except per share amounts unless otherwise indicated)**

Non-MBS securities - SBA, agency bonds and housing development bonds. We use one third party pricing vendor to measure the fair value of these securities. If available, we compare the prices received from that service to two other third party pricing vendors to determine if the price is reasonable. If no other third party prices are available we validate against internal models.

Advances. We determine the fair value of an advance by calculating the present value of its expected future cash flows. Accrued interest receivable is included in the expected future cash flows for an advance carried at fair value under the fair value option, and accordingly, accrued interest receivable on such an advance is classified in Advances in our statements of condition. Accrued interest receivable is not included in the expected future cash flows on an advance carried on an amortized cost basis, and accordingly, accrued interest receivable on such an advance is classified in Other Assets in our statements of condition. In determining fair value we do not factor in prepayment risk in cases where an advance carries a prepayment fee since we are financially indifferent whether or not the borrower prepays.

The significant inputs used to determine fair value for advances carried under the fair value option in our statements of condition are shown below.

- Consolidated Obligation Curve (CO Curve). The Office of Finance constructs this market-observable curve using the U.S. Treasury Curve as a base which is then adjusted by adding indicative spreads obtained largely from market observable sources, which includes the benchmark component interest rate. These market indications are derived from pricing indications from dealers, historical pricing relationships, market activity such as recent GSE trades, and other secondary market activity. The CO Curve best represents our cost of funds and is an integral factor with respect to pricing our advance products, and accordingly, we utilize it to measure an advance's fair value.
- Volatility assumption. Market-based expectations of future interest rate volatility implied from current market prices for similar options.
- Target spread assumption. The target spread relative to the cost of funds that we expect to earn for a given advance.

MPF Loans held in portfolio. We measure the fair value of our entire mortgage loan portfolio based on to-be-announced (TBA) securities, which represent quoted market prices for new mortgage-backed securities issued by U.S. government-sponsored enterprises, and adjust that fair value amount for impaired MPF Loans held in portfolio. The prices of the referenced mortgage-backed securities and the MPF Loans are highly dependent upon the underlying prepayment assumptions priced in the secondary market. Prices are then adjusted for differences in coupon, average loan rate, seasoning, settlements, purchase market spread, loan balance, and cash flow remittance between our MPF Loans and the referenced mortgage-backed securities.

MPF Loans held for sale (included in Other Assets). We measure the fair value of our MPF Loans HFS portfolio based on TBA securities, which represent quoted market prices for new mortgage-backed securities issued by U.S. government-sponsored enterprises.

Derivative assets/liabilities. Derivative instruments are primarily transacted in the institutional dealer market and priced with observable market assumptions at a mid-market valuation point. We estimate the fair value of a derivative that is not transacted in such an active market using standard valuation techniques, such as discounted cash-flow analysis and comparisons to similar instruments. We are subject to nonperformance risk in derivative transactions due to the potential default by our derivative counterparties or a DCO. To mitigate this risk, we have entered into master netting agreements and credit support agreements with our derivative counterparties for our bilaterally executed derivative contracts that provide for the daily delivery of collateral. We apply the "portfolio exception" for purposes of determining the nonperformance risk adjustment, if any, to the fair value of our derivative instruments. As a result, we measure the nonperformance risk adjustment on our derivative instruments by taking into consideration the effects of legally enforceable master netting agreements that allow us to settle positive and negative positions and offset collateral with the same counterparty on a net basis.

For transactions executed as a cleared derivative, we settle our variation margin exposure daily in cash and pledge securities collateral for initial margin exposure. We also have established the enforceability of offsetting rights incorporated in the agreements for the cleared derivative transactions. Our net counterparty position equals the amount attributable to a particular credit exposure that we would receive to sell a net long position or that we would pay to transfer a net short position. Based on our risk management practices described above and our assessment of any change in our own credit spread, we concluded that the effect of the credit differential between us and our derivative counterparties and the DCO was sufficiently mitigated, to an immaterial level, so that no nonperformance risk adjustments were deemed necessary to the recorded fair value of our derivative assets/liabilities in our statements of condition. See **Note 9 - Derivatives and Hedging Activities** for further discussion of our credit risk management practices.

**Notes to Financial Statements****(Dollars in tables in millions except per share amounts unless otherwise indicated)**

In estimating a derivative's fair value, we use a discounted cash flow analysis utilizing market-observable inputs (inputs that are actively quoted and can be validated to external sources). Inputs by class of derivative are shown below.

Interest-rate related:

- We use the SOFR curve to determine the fair value of our cleared derivative contracts, and bilateral derivative contracts that use the SOFR index. For bilateral derivative contracts using an index other than SOFR, we use the OIS curve to determine the fair value.
- Volatility assumption market-based expectations of future interest rate volatility implied from current market prices for similar options.
- Prepayment assumption, if applicable.

Mortgage delivery commitments and TBA mortgage-backed securities:

- TBA price. Market-based prices of TBAs are determined by coupon class and expected term until settlement.

Deposits. We determine the fair values of deposits by their book values.

Community First Fund. We determine the fair values of Community First Fund loans by their book values.

Consolidated obligations. We estimate fair values based on the cost of raising comparable term debt using internal valuation models. Our internal valuation models use standard valuation techniques and estimate fair values based on the following significant inputs for those consolidated obligations carried at fair value:

- CO Curve for fixed-rate, noncallable (bullet) consolidated obligations and a spread to a benchmark swap curve for callable consolidated obligations based on price indications for callable consolidated obligations from the Office of Finance.
- Volatility assumption. Market-based expectations of future interest rate volatility implied from current market prices for similar options.
- Spread assumption. A spread adjustment to a benchmark swap curve used to value callable consolidated obligations carried at fair value.

Controls over Internal Valuation Methodologies and Third Party Pricing Vendors

Segregation of duties is a key control over our internal valuation methodologies and third party pricing vendors. In this regard, our segregation of duties are outlined below.

- Senior management is responsible for our valuation policies. Senior management's responsibility is independent of our investing and treasury functions.
- The Asset/Liability Management Committee approves fair value policies and reviews the appropriateness of current valuation methodologies and policies. Model validation is overseen by the Risk Management Committee of the Board of Directors.
- The Audit Committee of the Board of Directors oversees the controls utilized by the Asset/Liability Management Committee over their processes. This includes the results of independent model validations where appropriate.
- The Risk Management Group prepares the fair value measurements of our financial instruments, evaluates the appropriateness of the fair values generated by pricing models, and assures the reasonableness and consistent application of valuation approaches and assumptions utilized in cases where unobservable inputs are utilized. In addition, the group performs control processes to ensure the fair values received from third party pricing services are consistent with GAAP fair value measurement guidance.
- The Risk Management Group's responsibility is independent of our investing and treasury management functions.



Notes to Financial Statements

(Dollars in tables in millions except per share amounts unless otherwise indicated)

Other control processes over our internal valuation methodologies include, but are not limited to, the following:

- Reviewing the pricing model's theoretical soundness and appropriateness by personnel with relevant expertise who are independent from the fair value measurement function.
- Back testing models to subsequent transactions (e.g. termination of a derivative), analysis of actual cash flows to projected cash flows, comparisons with similar observable positions, and comparisons with information received from pricing services for financial instruments where prices or valuations require unobservable inputs.

Other control processes over third party pricing vendors, include, but are not limited to, the following:

- Understanding and evaluating the fair value measurements received on each major investment security type to ensure that the amounts reported in our financial statements as well as our fair value disclosures comply with GAAP.
- Utilizing all fair value inputs received from multiple third party pricing vendors to determine the fair value of an individual security unless we determine that exclusion of a fair value input is appropriate based on our control processes.
- Discussions with our third party pricing vendors to ensure that they are in compliance with fair value measurement guidance under GAAP. Such discussions focus on the following:
 - Understanding their pricing models to the extent possible, as some pricing models are proprietary in nature.
 - Understanding the principal or most advantageous market selected and our ability to access that market.
 - Assumptions and significant inputs used in determining the fair value measurement.
 - The appropriateness of the fair value hierarchy level as of the reporting date.
 - Whether the market was active or illiquid as of the reporting date.
 - Whether transactions were between willing buyers and sellers or distressed in nature as of the reporting date.
 - Whether the fair value measurements as of the reporting date is based on current or stale assumptions and inputs.
- Obtaining the third party pricing vendor methodologies and control reports.
- Challenging fair value measurements received that represent outliers to the fair value measurements received on the same financial instrument from a different third party pricing service. We document these challenges on a monthly basis.
- Examining the underlying inputs and assumptions for a sample of individual securities across asset classes and average life.
- Identifying stale prices, prices changed significantly from prior valuations, and other anomalies that may indicate that a price may not be accurate.


Notes to Financial Statements

(Dollars in tables in millions except per share amounts unless otherwise indicated)

Fair Value Estimates

The following table is a summary of the fair value estimates and related levels in the hierarchy. The carrying amounts are per the **Statements of Condition**. Fair value estimates represent the exit prices that we would receive to sell assets or pay to transfer liabilities in an orderly transaction with market participants at the measurement date. They do not represent an estimate of our overall market value as a going concern, as they do not take into account future business opportunities or profitability of assets and liabilities. We measure instrument-specific credit risk attributable to our consolidated obligations based on our nonperformance risk, which includes the credit risk associated with the joint and several liability of other FHLBs, see **Note 16 – Commitments and Contingencies**. As a result, we did not recognize any instrument-specific credit risk attributable to our consolidated obligations that are carried at fair value. See **Note 2 - Summary of Significant Accounting Policies** for our fair value policies and **Note 9 - Derivatives and Hedging Activities** for more information on the Netting and Cash Collateral amounts. Net carrying value in the below table is net of any allowance for credit losses.

	Net Carrying Amount	Fair Value	Level 1	Level 2	Level 3	Netting & Cash Collateral
As of December 31, 2021						
Carried at amortized cost						
Cash and due from banks and interest bearing deposits	\$ 900	\$ 900	\$ 900	\$ —	\$ —	
Federal funds sold and securities purchased under agreements to resell	12,267	12,267	—	12,267	—	
Held-to-maturity debt securities	1,801	1,832	—	1,822	10	
Advances	46,876	47,108	—	47,108	—	
MPF Loans held in portfolio, net	9,839	9,908	—	9,900	8	
Other assets	83	83	—	83	—	
Carried at fair value on a recurring basis						
Trading debt securities	954	954	—	954	—	
Available-for-sale debt securities	22,706	22,706	—	22,706	—	
Advances	1,173	1,173	—	1,173	—	
Derivative assets	14	14	—	70	—	\$ (56)
Other assets	104	104	—	104	—	
Carried at fair value on a nonrecurring basis						
MPF Loans held in portfolio, net	4	4	—	—	4	
Financial assets	96,721	\$ 97,053	\$ 900	\$ 96,187	\$ 22	\$ (56)
Other non financial assets	233					
Assets	\$ 96,954					
Carried at amortized cost						
Deposits	(1,034)	(1,034)	—	(1,034)	—	
Consolidated obligation discount notes	(24,563)	(24,563)	—	(24,563)	—	
Consolidated obligation bonds	(62,708)	(62,585)	—	(62,585)	—	
Mandatorily redeemable capital stock	(247)	(247)	(247)	—	—	
Other liabilities	(116)	(116)	—	(116)	—	
Carried at fair value on a recurring basis						
Consolidated obligation bonds	(665)	(665)	—	(665)	—	
Derivative liabilities	(32)	(32)	—	(527)	—	495
Financial liabilities	(89,365)	\$ (89,242)	\$ (247)	\$ (89,490)	\$ —	\$ 495
Other non financial liabilities	(837)					
Liabilities	\$ (90,202)					


Notes to Financial Statements

(Dollars in tables in millions except per share amounts unless otherwise indicated)

As of December 31, 2020	Net Carrying Amount	Fair Value	Level 1	Level 2	Level 3	Netting & Cash Collateral
Carried at amortized cost						
Cash and due from banks and interest bearing deposits	\$ 4,396	\$ 4,396	\$ 4,396	\$ —	\$ —	
Federal funds sold and securities purchased under agreements to resell	14,245	14,245	—	14,245	—	
Held-to-maturity debt securities	1,491	1,549	—	1,534	15	
Advances	45,380	45,696	—	45,696	—	
MPF Loans held in portfolio, net	10,020	10,332	—	10,327	5	
Other assets	90	90	—	90	—	
Carried at fair value on a recurring basis						
Trading debt securities	4,621	4,621	—	4,621	—	
Available-for-sale debt securities	18,437	18,437	—	18,437	—	
Advances	1,315	1,315	—	1,315	—	
Derivative assets	5	5	—	116	—	\$ (111)
Other assets	105	105	—	105	—	
Carried at fair value on a nonrecurring basis						
MPF Loans held in portfolio, net	18	18	—	—	18	
Financial assets	100,123	<u>\$ 100,809</u>	<u>\$ 4,396</u>	<u>\$ 96,486</u>	<u>\$ 38</u>	<u>\$ (111)</u>
Other non financial assets	233					
Assets	<u>\$100,356</u>					
Carried at amortized cost						
Deposits	(1,284)	(1,284)	—	(1,284)	—	
Consolidated obligation discount notes	(46,643)	(46,644)	—	(46,644)	—	
Consolidated obligation bonds	(40,826)	(41,183)	—	(41,183)	—	
Mandatorily redeemable capital stock	(279)	(279)	(279)	—	—	
Other liabilities	(89)	(89)	—	(89)	—	
Carried at fair value on a recurring basis						
Consolidated obligation discount notes	(2,000)	(2,000)	—	(2,000)	—	
Consolidated obligation bonds	(1,844)	(1,844)	—	(1,844)	—	
Derivative liabilities	(691)	(691)	—	(878)	—	187
Financial liabilities	(93,656)	<u>\$ (94,014)</u>	<u>\$ (279)</u>	<u>\$ (93,922)</u>	<u>\$ —</u>	<u>\$ 187</u>
Other non financial liabilities	(411)					
Liabilities	<u>\$ (94,067)</u>					

We had no transfers between levels for the periods shown.


Notes to Financial Statements
(Dollars in tables in millions except per share amounts unless otherwise indicated)
Level 3 Rollforward

The following table presents a rollforward of assets and liabilities that are measured at fair value on a recurring basis on the statements of condition using significant unobservable inputs (Level 3). We sold our AFS PLMBS during October 2020, as discussed in **Note 2 – Summary of Significant Accounting Policies**. There was no material activity in the current period for recurring Level 3 assets.

For the years ended December 31,	Available-For-Sale PLMBS	
	2020	2019
Balance at beginning of period	\$ 35	\$ 41
Gain (loss) included in earnings -		
Gain (loss) on sale	6	—
Interest income	2	2
Gain (loss) included in OCI -		
Net unrealized on AFS securities	(6)	(1)
Sales	(32)	—
Paydowns and settlements	(5)	(7)
Balance at end of period	\$ —	\$ 35
Unrealized gains (losses) recorded in earnings and attributable to instruments still held at period end	\$ —	\$ 2

Fair Value Option

We may elect the fair value option for financial instruments, such as advances, MPF Loans held for sale, and consolidated obligation discount notes and bonds, in cases where hedge accounting treatment may not be achieved due to the inability to meet the hedge effectiveness testing criteria, or in certain cases where we wish to mitigate the risk associated with selecting the fair value option for other instruments. Financial instruments for which we elected the fair value option along with their related fair value are shown on our **Statements of Condition**. Refer to **Note 2 - Summary of Significant Accounting Policies** for further details.

The following table presents the gains (losses) in fair values of financial assets and liabilities carried at fair value under the fair value option, which are recognized in noninterest income - instruments held under the fair value option in our **Statements of Income**.

For the years ended December 31,	2021	2020	2019
Advances	\$ (46)	\$ 64	\$ 50
Bonds	4	(3)	(14)
Other	(4)	(1)	(1)
Noninterest income - Instruments held under fair value option	\$ (46)	\$ 60	\$ 35

The following table reflects the difference between the aggregate UPB outstanding and the aggregate fair value for our long term financial instruments for which the fair value option has been elected. None of the advances were 90 days or more past due and none were on nonaccrual status.

As of	December 31, 2021		December 31, 2020	
	Advances	Consolidated Obligation Bonds	Advances	Consolidated Obligation Bonds
Unpaid principal balance	\$ 1,117	\$ 666	\$ 1,213	\$ 1,839
Fair value over (under) UPB	56	(1)	102	5
Fair value	\$ 1,173	\$ 665	\$ 1,315	\$ 1,844



Notes to Financial Statements

(Dollars in tables in millions except per share amounts unless otherwise indicated)

Note 16 – Commitments and Contingencies

The following table shows our commitments outstanding, which represent off-balance sheet obligations.

As of	December 31, 2021			December 31, 2020		
	Expire within one year	Expire after one year	Total	Expire within one year	Expire after one year	Total
Member standby letters of credit	\$ 4,285	\$ 7,032 ^a	\$ 11,317	\$ 10,446	\$ 5,949 ^a	\$ 16,395
MPF delivery commitments	366	—	366	1,527	—	1,527
Advance commitments	43	2	45	583	12	595
Housing authority standby bond purchase agreements	25	477	502	10	455	465
Unsettled consolidated obligation bonds	378	—	378	125	—	125
Other	3	—	3	3	—	3
Commitments	\$ 5,100	\$ 7,511	\$ 12,611	\$ 12,694	\$ 6,416	\$ 19,110

^a Contains \$6.1 billion and \$5.2 billion of member standby letters of credit at December 31, 2021 and December 31, 2020, which were renewable annually.

Commitments

Member standby letters of credit. A member standby letter of credit is a financing arrangement between us and our member. We execute a letter of credit with a member for a fee and require that member to fully collateralize the letter of credit at the time of issuance. If we are required to make payment for a beneficiary's draw, the payment amount is converted into a collateralized advance to the member if not reimbursed by the member. We monitor the creditworthiness of our members that have letters of credit. See **Note 8 - Allowance for Credit Losses** for information related to our credit risk for member standby letters of credit.

Housing authority standby bond purchase agreements. We enter into agreements with state housing authorities within our district to provide them liquidity for a fee. Specifically, if required under the terms of the agreement, we purchase and hold a state housing authority's bonds until their designated marketing agent can find a suitable investor or the state housing authority repurchases the bond. These standby bond purchase commitments have original expiration periods of up to 5 years, expiring no later than 2026, although some may be renewable at our option. We purchased no bonds under these agreements during the periods presented above.

Advance commitments. We enter into forward-starting advances, which lock in a predetermined interest rate for an advance that will be funded at a future date subject to certain conditions.

MPF delivery commitments. Includes delivery commitments to purchase all MPF Loans, including MPF Loans we hold in our portfolio and MPF Loans that are subsequently sold or securitized.

Contingencies

Joint and Several Liability on Behalf of Another FHLB. We have a contingent obligation for the payment of principal and interest on consolidated obligations of all the FHLBs resulting from our joint and several liability. We did not expect to pay any additional amounts under our joint and several liability as of December 31, 2021 and December 31, 2020.

Legal Proceedings. We may be subject to various legal proceedings arising in the normal course of business. After consultation with legal counsel, management is not aware of any such proceedings that might result in our ultimate liability in an amount that would have a material effect on our financial condition or results of operations.

**Notes to Financial Statements****(Dollars in tables in millions except per share amounts unless otherwise indicated)****Note 17 – Transactions with Related Parties and Other FHLBs**

We define related parties as either members whose officers or directors serve on our Board of Directors, or members that control more than 10% of our total voting interests. We did not have any members that controlled more than 10% of our total voting interests for the periods presented in these financial statements.

In the normal course of business, we may extend credit to or enter into other transactions with a related party. These transactions are done at market terms that are no more favorable than the terms of comparable transactions with other members who are not considered related parties.

Members

The following table summarizes material balances we had with our members who are related parties as defined above (including their affiliates) as of the dates presented. The related net income impacts to our **Statements of Income** were not material.

As of	December 31, 2021	December 31, 2020
Assets - Advances	\$ 235	\$ 252
Liabilities - Deposits	15	15
Equity - Capital Stock	18	17

Other FHLBs

From time to time, we may loan to, or borrow from, other FHLBs. These transactions are done at market terms that are no more favorable than the terms of comparable transactions with other counterparties. These transactions are overnight, maturing the following business day.

In addition, we provide programmatic and operational support in our role as the administrator of the MPF Program on behalf of the other MPF Banks for a fee.

Material transactions with other FHLBs are identified on the face of our **Financial Statements**.



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 CHICAGO

/s/ Michael A. Ericson

By: Michael A. Ericson
Title: President and Chief Executive Officer
(Principal Executive Officer)

Date: March 10, 2022

/s/ Roger D. Lundstrom

By: Roger D. Lundstrom
Title: Executive Vice President and Chief Financial Officer
(Principal Financial Officer and Principal Accounting Officer)

Date: March 10, 2022

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.

Signature	Title	Date
<u>/s/ Michael A. Ericson</u> Michael A. Ericson	President and Chief Executive Officer (Principal Executive Officer)	March 10, 2022
<u>/s/ Roger D. Lundstrom</u> Roger D. Lundstrom	Executive Vice President and Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	March 10, 2022
<u>*s/ James T. Ashworth</u> James T. Ashworth	Chairperson of the Board of Directors	March 10, 2022
<u>*s/ Joseph Fazio III</u> Joseph Fazio III	Vice Chairperson of the Board of Directors	March 10, 2022
<u>*s/ Edward P. Brady</u> Edward P. Brady	Director	March 10, 2022
<u>*s/ Mary J. Cahillane</u> Mary J. Cahillane	Director	March 10, 2022
<u>*s/ Mark J. Eppli</u> Mark J. Eppli	Director	March 10, 2022
<u>*s/ Michelle L. Gross</u> Michelle L. Gross	Director	March 10, 2022
<u>*s/ James H. Hegenbarth</u> James H. Hegenbarth	Director	March 10, 2022



FHLBank
Chicago Federal Home Loan Bank of Chicago

Signature	Title	Date
<u>*/s/ Phyllis Lockett</u> Phyllis Lockett	Director	March 10, 2022
<u>*/s/ David J. Loundy</u> David J. Loundy	Director	March 10, 2022
<u>*/s/ David R. Pirsein</u> David R. Pirsein	Director	March 10, 2022
<u>*/s/ John K. Reinke</u> John K. Reinke	Director	March 10, 2022
<u>*/s/ Leo J. Ries</u> Leo J. Ries	Director	March 10, 2022
<u>*/s/ Lois A. Scott</u> Lois A. Scott	Director	March 10, 2022
<u>*/s/ Michael G. Steelman</u> Michael G. Steelman	Director	March 10, 2022
<u>*/s/ Ty R. Taylor</u> Ty R. Taylor	Director	March 10, 2022
<u>*/s/ Daniel G. Watts</u> Daniel G. Watts	Director	March 10, 2022
<u>*/s/ Maria E. Wynne</u> Maria E. Wynne	Director	March 10, 2022
<u>*/s/ Andrea L. Zopp</u> Andrea L. Zopp	Director	March 10, 2022
<u>* By: /s/ Laura M. Turnquest</u> Laura M. Turnquest, Attorney-in-fact		March 10, 2022