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

# FORM 10-Q

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

**For the quarterly period ended June 30, 2020**

**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**

FHLB Chicago | Federal Home Loan Bank of Chicago

(Exact name of registrant as specified in its charter)

| | |
|---|---|
| **Federally chartered corporation** | **36-6001019** |
| (State or other jurisdiction of incorporation or organization) | (I.R.S. Employer Identification No.) |
| **200 East Randolph Drive** | |
| **Chicago, IL** | **60601** |
| (Address of principal executive offices) | (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 |
|---|---|---|
| | | |

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

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

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

| | | | |
|---|---|---|---|
| Large accelerated filer | ☐ | Accelerated filer | ☐ |
| Non-accelerated filer | ☒ | Smaller reporting company | ☐ |
| | | Emerging growth company | ☐ |

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

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

As of June 30, 2020, including mandatorily redeemable capital stock, registrant had 21,253,299 total outstanding shares of Class B Capital Stock.

FHLB Chicago | Federal Home Loan Bank of Chicago

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**Item 1. Financial Statements.**
**Statements of Condition (unaudited)**
(U.S. Dollars in millions, except capital stock par value)

| | June 30, 2020 | December 31, 2019 |
|---|---|---|
| **Assets** | | |
| Cash and due from banks | $ 48 | $ 29 |
| Interest bearing deposits | 1,255 | 1,680 |
| Federal Funds sold | 4,971 | 7,356 |
| Securities purchased under agreements to resell | 3,500 | 6,750 |
| **Investment debt securities -** | | |
| Trading, **649** and 432 pledged | 5,971 | 4,648 |
| Available-for-sale | 18,640 | 16,067 |
| Held-to-maturity, **1,887** and 2,615 fair value | 1,668 | 2,381 |
| **Investment debt securities** | 26,279 | 23,096 |
| Advances, **1,881** and 2,808 carried at fair value | 49,250 | 50,508 |
| MPF Loans held in portfolio, net of **(4)** and (1) allowance for credit losses | 10,947 | 10,000 |
| Derivative assets | 34 | 6 |
| Other assets, **130** and 83 carried at fair value | | |
| net of **(7)** and — allowance for credit losses | 447 | 402 |
| **Assets** | $ 96,731 | $ 99,827 |
| | | |
| **Liabilities** | | |
| **Deposits -** | | |
| Noninterest bearing | $ 455 | $ 184 |
| Interest bearing, **24** and 15 from other FHLBs | 1,010 | 663 |
| **Deposits** | 1,465 | 847 |
| **Consolidated obligations, net -** | | |
| Discount notes, **11,498** and 17,966 carried at fair value | 37,440 | 41,675 |
| Bonds, **1,867** and 7,984 carried at fair value | 51,760 | 50,474 |
| **Consolidated obligations, net** | 89,200 | 92,149 |
| Derivative liabilities | 24 | 14 |
| Affordable Housing Program assessment payable | 80 | 84 |
| Mandatorily redeemable capital stock | 289 | 324 |
| Other liabilities | 326 | 955 |
| **Liabilities** | 91,384 | 94,373 |
| Commitments and contingencies - see notes to the financial statements | | |
| **Capital** | | |
| Class B1 activity stock, **13** and 13 million shares issued and outstanding | 1,323 | 1,337 |
| Class B2 membership stock, **5** and 4 million shares issued and outstanding | 514 | 376 |
| **Capital stock - putable, $100** and $100 par value per share | 1,837 | 1,713 |
| Retained earnings - unrestricted | 3,274 | 3,197 |
| Retained earnings - restricted | 599 | 573 |
| **Retained earnings** | 3,873 | 3,770 |
| Accumulated other comprehensive income (loss) (AOCI) | (363) | (29) |
| **Capital** | 5,347 | 5,454 |
| **Liabilities and capital** | $ 96,731 | $ 99,827 |

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

**Statements of Income (unaudited)**
(U.S. Dollars in millions)

| | Three months ended June 30, | | Six months ended June 30, | |
|---|---|---|---|---|
| | **2020** | 2019 | **2020** | 2019 |
| Interest income | **$ 347** | $ 703 | **$ 912** | $ 1,389 |
| Interest expense | **209** | 587 | **628** | 1,155 |
| **Net interest income** | **138** | 116 | **284** | 234 |
| Provision for (reversal of) credit losses | **4** | — | **6** | — |
| **Net interest income after provision for (reversal of) credit losses** | **134** | 116 | **278** | 234 |
| **Noninterest income -** | | | | |
| Trading securities | **(25)** | 15 | **62** | 23 |
| Derivatives and hedging activities | **(21)** | (24) | **(159)** | (26) |
| Instruments held under fair value option | **36** | 17 | **76** | 19 |
| MPF fees, **8** , 6 , **16** and 13 from other FHLBs | **15** | 9 | **25** | 17 |
| Other, net | **4** | 4 | **7** | 6 |
| **Noninterest income** | **9** | 21 | **11** | 39 |
| **Noninterest expense -** | | | | |
| Compensation and benefits | **35** | 27 | **71** | 55 |
| Nonpayroll operating expenses | **26** | 23 | **46** | 43 |
| COVID-19 Relief Program | **19** | — | **19** | — |
| Other | **5** | 2 | **6** | 4 |
| **Noninterest expense** | **85** | 52 | **142** | 102 |
| **Income before assessments** | **58** | 85 | **147** | 171 |
| Affordable Housing Program | **6** | 9 | **15** | 18 |
| **Net income** | **$ 52** | $ 76 | **$ 132** | $ 153 |

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

**Statements of Comprehensive Income (unaudited)**
(U.S. Dollars in millions)

| | Three months ended June 30, | | Six months ended June 30, | |
|---|---|---|---|---|
| | **2020** | 2019 | **2020** | 2019 |
| **Net income** | **$ 52** | $ 76 | **$ 132** | $ 153 |
| | | | | |
| **Other comprehensive income (loss) -** | | | | |
| Net unrealized gain (loss) available-for-sale debt securities | **347** | (17) | **(284)** | (19) |
| Noncredit OTTI held-to-maturity debt securities | **5** | 7 | **9** | 13 |
| Net unrealized gain (loss) cash flow hedges | **(4)** | (11) | **(48)** | (13) |
| Postretirement plans | **—** | 1 | **(11)** | 5 |
| **Other comprehensive income (loss)** | **348** | (20) | **(334)** | (14) |
| | | | | |
| **Comprehensive income** | **$ 400** | $ 56 | **$ (202)** | $ 139 |

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

**Statements of Capital (unaudited)**
(U.S. Dollars and shares in millions)

| | Capital Stock - Putable - B1 Activity | | Capital Stock - Putable - B2 Membership | | Retained Earnings | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Shares | Value | Shares | Value | Unrestricted | Restricted | Total | AOCI | Total |
| **March 31, 2020** | 15 | $ 1,528 | 4 | $ 426 | $ 3,233 | $ 589 | $ 3,822 | $ (711) | $ 5,065 |
| Comprehensive income | | | | | 42 | 10 | 52 | 348 | 400 |
| Proceeds from issuance of capital stock | 4 | 405 | — | 18 | | | | | 423 |
| Repurchases of capital stock | — | — | (5) | (540) | | | | | (540) |
| Transfers between classes of capital stock | (6) | (610) | 6 | 610 | | | | | |
| Partial recovery of prior capital distribution to FICO - see Note 11 | | | | | 19 | | 19 | | 19 |
| Cash dividends - class B1 | | | | | (18) | | (18) | | (18) |
| Class B1 annualized rate | | 5.00% | | | | | | | |
| Cash dividends - class B2 | | | | | (2) | | (2) | | (2) |
| Class B2 annualized rate | | | | 2.25% | | | | | |
| Total change in period, excl. cumulative effect | (2) | (205) | 1 | 88 | 41 | 10 | 51 | 348 | 282 |
| **June 30, 2020** | 13 | $ 1,323 | 5 | $ 514 | $ 3,274 | $ 599 | $ 3,873 | $ (363) | $ 5,347 |
| | | | | | | | | | |
| **December 31, 2019** | 13 | $ 1,337 | 4 | $ 376 | $ 3,197 | $ 573 | $ 3,770 | $ (29) | $ 5,454 |
| Cumulative effect adjustment on new accounting standards - see Note 2 | | | | | (7) | | (7) | | (7) |
| Comprehensive income | | | | | 106 | 26 | 132 | (334) | (202) |
| Proceeds from issuance of capital stock | 11 | 1,133 | — | 18 | | | | | 1,151 |
| Repurchases of capital stock | — | — | (10) | (1,026) | | | | | (1,026) |
| Capital stock reclassed to mandatorily redeemable capital stock liability | — | — | — | (1) | | | | | (1) |
| Transfers between classes of capital stock | (11) | (1,147) | 11 | 1,147 | | | | | |
| Partial recovery of prior capital distribution to FICO - see Note 11 | | | | | 19 | | 19 | | 19 |
| Cash dividends - class B1 | | | | | (38) | | (38) | | (38) |
| Class B1 annualized rate | | 5.00% | | | | | | | |
| Cash dividends - class B2 | | | | | (3) | | (3) | | (3) |
| Class B2 annualized rate | | | | 2.25% | | | | | |
| Total change in period, excl. cumulative effect | — | (14) | 1 | 138 | 84 | 26 | 110 | (334) | (100) |
| **June 30, 2020** | 13 | $ 1,323 | 5 | $ 514 | $ 3,274 | $ 599 | $ 3,873 | $ (363) | $ 5,347 |

| | Capital Stock - Putable - B1 Activity | | Capital Stock - Putable - B2 Membership | | Retained Earnings | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Shares | Value | Shares | Value | Unrestricted | Restricted | Total | AOCI | Total |
| March 31, 2019 | 14 | $ 1,366 | 3 | $ 294 | $ 3,080 | $ 528 | $ 3,608 | $ 61 | $ 5,329 |
| Comprehensive income | | | | | 61 | 15 | 76 | (20) | 56 |
| Proceeds from issuance of capital stock | 8 | 842 | — | 12 | | | | | 854 |
| Repurchases of capital stock | — | — | (8) | (827) | | | | | (827) |
| Capital stock reclassed to mandatorily redeemable capital stock liability | — | (9) | — | — | | | | | (9) |
| Transfers between classes of capital stock | (8) | (805) | 8 | 805 | | | | | |
| Cash dividends - class B1 | | | | | (20) | | (20) | | (20) |
| Class B1 annualized rate | | 5.00% | | | | | | | |
| Cash dividends - class B2 | | | | | (1) | | (1) | | (1) |
| Class B2 annualized rate | | | | 2.25% | | | | | |
| Total change in period, excl. cumulative effect | — | 28 | — | (10) | 40 | 15 | 55 | (20) | 53 |
| June 30, 2019 | 14 | $ 1,394 | 3 | $ 284 | $ 3,120 | $ 543 | $ 3,663 | $ 41 | $ 5,382 |
| | | | | | | | | | |
| December 31, 2018 | 15 | $ 1,476 | 2 | $ 222 | $ 3,023 | $ 513 | $ 3,536 | $ 55 | $ 5,289 |
| Cumulative effect adjustment | | | | | 16 | | 16 | | 16 |
| Comprehensive income | | | | | 123 | 30 | 153 | (14) | 139 |
| Proceeds from issuance of capital stock | 14 | 1,454 | — | 12 | | | | | 1,466 |
| Repurchases of capital stock | — | — | (14) | (1,476) | | | | | (1,476) |
| Capital stock reclassed to mandatorily redeemable capital stock liability | — | (9) | — | (1) | | | | | (10) |
| Transfers between classes of capital stock | (15) | (1,527) | 15 | 1,527 | | | | | |
| Cash dividends - class B1 | | | | | (40) | | (40) | | (40) |
| Class B1 annualized rate | | 5.00% | | | | | | | |
| Cash dividends - class B2 | | | | | (2) | | (2) | | (2) |
| Class B2 annualized rate | | | | 2.13% | | | | | |
| Total change in period, excl. cumulative effect | (1) | (82) | 1 | 62 | 81 | 30 | 111 | (14) | 77 |
| June 30, 2019 | 14 | $ 1,394 | 3 | $ 284 | $ 3,120 | $ 543 | $ 3,663 | $ 41 | $ 5,382 |

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

FHLB Chicago | Federal Home Loan Bank of Chicago

**Condensed Statements of Cash Flows (unaudited)**
(U.S. Dollars in millions)

| | Six months ended June 30, | 2020 | 2019 |
|---|---|---|---|
| **Operating** | **Net cash provided by (used in) operating activities** | **$ (2,013)** | $ (291) |
| **Investing** | Net change interest bearing deposits | **425** | (380) |
| | Net change Federal Funds sold | **2,385** | (2,811) |
| | Net change securities purchased under agreements to resell | **3,250** | 350 |
| | **Trading debt securities -** | | |
| | Sales | **1,502** | — |
| | Proceeds from maturities and paydowns | **252** | 1,502 |
| | Purchases | **(3,025)** | (1,993) |
| | **Available-for-sale debt securities -** | | |
| | Proceeds from maturities and paydowns | **609** | 2,348 |
| | Purchases | **(2,760)** | (2,979) |
| | **Held-to-maturity debt securities -** | | |
| | Proceeds from maturities and paydowns | **1,519** | 1,387 |
| | Purchases | **(786)** | (930) |
| | **Advances -** | | |
| | Principal collected | **600,688** | 752,725 |
| | Issued | **(598,601)** | (750,899) |
| | **MPF Loans held in portfolio -** | | |
| | Principal collected | **1,716** | 468 |
| | Purchases | **(2,695)** | (1,634) |
| | Other investing activities | **(9)** | 7 |
| | **Net cash provided by (used in) investing activities** | **4,470** | (2,839) |
| **Financing** | Net change deposits, **10** and (14) from other FHLBs | **618** | 106 |
| | **Discount notes -** | | |
| | Net proceeds from issuance | **323,650** | 775,088 |
| | Payments for maturing and retiring | **(327,833)** | (773,405) |
| | **Consolidated obligation bonds -** | | |
| | Net proceeds from issuance | **27,805** | 17,351 |
| | Payments for maturing and retiring | **(26,743)** | (15,961) |
| | **Capital stock -** | | |
| | Proceeds from issuance | **1,151** | 1,466 |
| | Repurchases | **(1,026)** | (1,476) |
| | Cash dividends paid | **(41)** | (42) |
| | Other financing activities | **(19)** | 2 |
| | **Net cash provided by (used in) financing activities** | **(2,438)** | 3,129 |
| | **Net increase (decrease) in cash and due from banks** | **19** | (1) |
| | Cash and due from banks at beginning of period | **29** | 28 |
| | **Cash and due from banks at end of period** | **$ 48** | $ 27 |

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

## 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 detailed in the following notes.

In the opinion of management, all normal recurring adjustments have been included for a fair statement of this interim financial information. These unaudited financial statements and the following footnotes should be read in conjunction with the audited financial statements and footnotes for the year ended December 31, 2019, included in our 2019 Annual Report on Form 10-K (2019 Form 10-K) starting on page F-1, as filed with the Securities and Exchange Commission (SEC).

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

“Mortgage Partnership Finance”, “MPF”, “MPF Xtra”, and "Community First" are registered trademarks of the Federal Home Loan Bank of Chicago.

See the **Glossary of Terms** starting on page 67 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. 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.

### Basis of Presentation

The basis of presentation pertaining to the consolidation of our variable interest entities has not changed since we filed our 2019 Form 10-K. The basis of presentation pertaining to our gross versus net presentation of derivative financial instruments also has not changed since we filed our 2019 Form 10-K.

Refer to **Note 1- Background and Basis of Presentation** to the financial statements in our 2019 Form 10-K with respect to our basis of presentation for consolidation of variable interest entities and our gross versus net presentation of financial instruments for further details.

**Note 2 – Summary of Significant Accounting Policies**

Our **Summary of Significant Accounting Policies** through December 31, 2019, can be found in **Note 2 – Summary of Significant Accounting Policies** to the financial statements in our 2019 Form 10-K including details on the cumulative effect adjustment recorded in 2019.

**We adopted the following policies effective January 1, 2020:**

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. ASU 2016-13 amended existing GAAP guidance applicable to measuring credit losses on financial instruments. Specifically, the amendment replaced the "incurred loss" impairment methodology with a "currently expected credit losses" or CECL methodology. The measurement of CECL is based on relevant information about past 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 clarified 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.

Upon adoption, any difference between our existing and CECL allowance for credit losses was recognized 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. We elected not to measure an allowance for credit losses on accrued interest receivable as we reverse accrued interest on a monthly basis in the event of an interest shortfall. We present accrued interest receivable separately from the amortized cost of loans and held to maturity (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. Reversals of prior losses is permitted for HTM and AFS securities purchased after January 1, 2020. Such reversals are not permitted for HTM and AFS OTTI debt securities existing prior to January 1, 2020. Additionally, HTM and AFS debt securities will have their own allowance for credit losses. 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 securities classified as available-for-sale (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 (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 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 other comprehensive income (loss) (OCI).

We adopted the Accounting Standards Update (ASU): Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement (ASU 2018-15) for interim and annual periods on January 1, 2020. ASU 2018-15 amended existing GAAP to align the requirements for capitalizing implementation costs incurred in a hosting arrangement, that is, a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal use software (and hosting arrangements that include an internal use software license). The accounting for the service element of a hosting arrangement that is a service contract is not affected by these amendments. The guidance did not have an effect on our financial condition, results of operations, and cash flows at the time of adoption. We applied the new guidance on a prospective basis.

**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 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.

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 prospectively adjusting the effective interest rate.
- Modifications do not require reassessment of whether 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.

Optional One-Time Election to Sell or Transfer Debt Securities Classified as Held-to-Maturity.

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.

We are in the process of determining which optional expedients to elect as well as the timing and application of those elections. At this time we do not expect these elections to have a material financial statement impact.

**Troubled Debt Restructuring Relief**

On March 27, 2020, the Coronavirus, Aid, Relief, and Economic Security (CARES) Act was signed into law providing, among other things, optional, temporary relief from accounting for certain loan modifications as troubled debt restructurings (TDRs). Under the CARES Act, TDR relief is available to financial institutions for loan modifications related to the adverse effects of Coronavirus Disease 2019 (COVID-19) (COVID-related modifications) granted to borrowers that are current as of December 31, 2019. TDR relief applies to COVID-related modifications made from March 1, 2020, until the earlier of December 31, 2020, or 60 days following the termination of the national emergency declared by the President of the United States. In second quarter 2020, we elected to apply the TDR relief provided by the CARES Act.

As such, all COVID-related modifications meeting the provisions of the CARES Act will be excluded from TDR classification and accounting. COVID-related modifications that do not meet the provisions of the CARES Act will continue to be assessed for TDR classification under the Bank's existing accounting policy.

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

**Note 3 – Recently Issued but Not Yet Adopted Accounting Standards**

There were no recently issued but not yet adopted accounting standards which may have an effect on our financial statements.

**Note 4 – Interest Income and Interest Expense**

The following table presents interest income and interest expense for the periods indicated:

| | Three months ended June 30, | | Six months ended June 30, | |
|---|---|---|---|---|
| | **2020** | 2019 | **2020** | 2019 |
| **Interest income -** | | | | |
| Trading | **$ 28** | $ 21 | **$ 54** | $ 38 |
| Available-for-sale | **75** | 129 | **215** | 254 |
| Held-to-maturity | **21** | 34 | **48** | 72 |
| **Investment debt securities** | **124** | 184 | **317** | 364 |
| Advances interest income | **132** | 359 | **368** | 717 |
| Advances prepayment fees | **13** | 3 | **15** | 3 |
| **Advances** | **145** | **362** | **383** | **720** |
| MPF Loans held in portfolio | **76** | 78 | **163** | 154 |
| Federal funds sold and securities purchased under agreements to resell | **1** | 70 | **39** | 137 |
| Other | **1** | 9 | **10** | 14 |
| **Interest income** | **347** | 703 | **912** | 1,389 |
| **Interest expense -** | | | | |
| **Consolidated obligations -** | | | | |
| Discount notes | **82** | 280 | **267** | 561 |
| Bonds | **123** | 300 | **351** | 579 |
| Other | **4** | 7 | **10** | 15 |
| **Interest expense** | **209** | 587 | **628** | 1,155 |
| **Net interest income** | **138** | 116 | **284** | 234 |
| Provision for (reversal of) credit losses | **4** | — | **6** | — |
| **Net interest income after provision for (reversal of) credit losses** | **$ 134** | $ 116 | **$ 278** | $ 234 |

**(U.S. Dollars in tables in millions except per share amounts unless otherwise indicated)**

### Note 5 – Investment Debt Securities

We classify debt securities as either trading, HTM, 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 government sponsored enterprises (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 residential mortgage-backed securities (MBS) - issued by Fannie Mae and Freddie Mac.
- Government guaranteed residential MBS.
- Private label residential 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 | June 30, 2020 | December 31, 2019 |
|---|---|---|
| U.S. Government & other government related | **$ 5,961** | $ 4,636 |
| **Residential MBS** | | |
| GSE | **9** | 11 |
| Government guaranteed | **1** | 1 |
| **Trading debt securities** | **$ 5,971** | $ 4,648 |

The following table presents our gains and losses on trading debt securities recorded in Noninterest Income Other.

| | Three months ended June 30, | | Six months ended June 30, | |
|---|---|---|---|---|
| | **2020** | 2019 | **2020** | 2019 |
| Net unrealized gains (losses) on securities held at period end | **$ (29)** | $ 15 | **$ 41** | $ 12 |
| Net realized gains (losses) on securities sold/matured during the period | **4** | — | **21** | 11 |
| **Net gains (losses) on trading debt securities** | **$ (25)** | $ 15 | **$ 62** | $ 23 |

**(U.S. 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 [a] | Gross Unrealized Gains in AOCI | Gross Unrealized (Losses) in AOCI | Net Carrying Amount and Fair Value |
|---|---|---|---|---|
| **As of June 30, 2020** | | | | |
| U.S. Government & other government related | **$ 1,580** | **$ 76** | **$ (1)** | **$ 1,655** |
| State or local housing agency | **15** | **1** | **—** | **16** |
| FFELP ABS | **3,064** | **70** | **(22)** | **3,112** |
| **Residential MBS** | | | | |
| GSE | **13,833** | **36** | **(351)** | **13,518** |
| Government guaranteed | **299** | **9** | **—** | **308** |
| Private label | **29** | **3** | **(1)** | **31** |
| **Available-for-sale debt securities** | **$ 18,820** | **$ 195** | **$ (375)** | **$ 18,640** |
| | | | | |
| As of December 31, 2019 | | | | |
| U.S. Government & other government related | $ 749 | $ 32 | $ — | $ 781 |
| State or local housing agency | 14 | 1 | — | 15 |
| FFELP ABS | 3,219 | 140 | (7) | 3,352 |
| **Residential MBS** | | | | |
| GSE | 11,600 | 19 | (97) | 11,522 |
| Government guaranteed | 352 | 10 | — | 362 |
| Private label | 29 | 6 | — | 35 |
| **Available-for-sale debt securities** | $ 15,963 | $ 208 | $ (104) | $ 16,067 |

[a] Includes adjustments made to the cost basis of an investment for accretion, amortization, net charge-offs, fair value hedge accounting adjustments, and includes accrued interest receivable of $55 million and $57 million at June 30, 2020 and December 31, 2019.

We had no sales of AFS debt securities for the periods presented.

(U.S. 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 [a] | Non-credit OTTI Recognized in AOCI (Loss) | Net Carrying Amount | Gross Unrecognized Holding Gains | Gross Unrecognized Holding (Losses) | Fair Value |
|---|---|---|---|---|---|---|
| **As of June 30, 2020** | | | | | | |
| U.S. Government & other government related | **$ 844** | **$ —** | **$ 844** | **$ 31** | **$ —** | **$ 875** |
| State or local housing agency | **2** | **—** | **2** | **—** | **—** | **2** |
| **Residential MBS** | | | | | | |
| GSE | **419** | **—** | **419** | **35** | **—** | **454** |
| Government guaranteed | **137** | **—** | **137** | **2** | **—** | **139** |
| Private label | **342** | **(76)** | **266** | **152** | **(1)** | **417** |
| **Held-to-maturity debt securities** | **$ 1,744** | **$ (76)** | **$ 1,668** | **$ 220** | **$ (1)** | **$ 1,887** |
| | | | | | | |
| As of December 31, 2019 | | | | | | |
| U.S. Government & other government related | $ 1,129 | $ — | $ 1,129 | $ 18 | $ (1) | $ 1,146 |
| State or local housing agency | 4 | — | 4 | — | — | 4 |
| **Residential MBS** | | | | | | |
| GSE | 788 | — | 788 | 31 | — | 819 |
| Government guaranteed | 167 | — | 167 | 2 | — | 169 |
| Private label | 378 | (85) | 293 | 184 | — | 477 |
| **Held-to-maturity debt securities** | $ 2,466 | $ (85) | $ 2,381 | $ 235 | $ (1) | $ 2,615 |

[a] Includes adjustments made to the cost basis of an investment for accretion, amortization, and/or net charge-offs.

We had no sales of HTM debt securities for the periods presented.

**Contractual Maturity Terms**

The maturity of our AFS and HTM debt securities is detailed in the following table.

| | Available-for-Sale | | Held-to-Maturity | |
|---|---|---|---|---|
| **As of June 30, 2020** | Amortized Cost Basis | Net Carrying Amount and Fair Value | Net Carrying Amount | Fair Value |
| **Year of Maturity -** | | | | |
| Due in one year or less | **$ 1** | **$ 1** | **$ 385** | **$ 386** |
| Due after one year through five years | **11** | **11** | **18** | **18** |
| Due after five years through ten years | **500** | **526** | **109** | **112** |
| Due after ten years | **1,083** | **1,133** | **334** | **361** |
| ABS and MBS without a single maturity date | **17,225** | **16,969** | **822** | **1,010** |
| **Total debt securities** | **$ 18,820** | **$ 18,640** | **$ 1,668** | **$ 1,887** |

**(U.S. Dollars in tables in millions except per share amounts unless otherwise indicated)**

**Aging of Unrealized Temporary Losses**

The following table presents unrealized temporary losses on our AFS portfolio for periods less than 12 months and for 12 months or more. We recognized no credit charges on these unrealized loss positions. Refer to the **Credit Loss Analysis** in the following section for further discussion. In the tables below, in cases where the gross unrealized losses for an investment category were 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 June 30, 2020** | | | | | | |
| U.S. Government & other government related | **$ 58** | **$ (1)** | **$ 2** | **$ —** | **$ 60** | **$ (1)** |
| FFELP ABS | **671** | **(1)** | **474** | **(21)** | **1,145** | **(22)** |
| **Residential MBS** | | | | | | |
| GSE | **5,198** | **(97)** | **6,980** | **(254)** | **12,178** | **(351)** |
| Private label | **—** | **—** | **4** | **(1)** | **4** | **(1)** |
| **Available-for-sale debt securities** | **$ 5,927** | **$ (99)** | **$ 7,460** | **$ (276)** | **$13,387** | **$ (375)** |
| | | | | | | |
| As of December 31, 2019 | | | | | | |
| U.S. Government & other government related | $ 44 | $ — | $ 2 | $ — | $ 46 | $ — |
| FFELP ABS | 512 | (7) | — | — | 512 | (7) |
| **Residential MBS** | | | | | | |
| GSE | 3,426 | (25) | 4,412 | (72) | 7,838 | (97) |
| Government guaranteed | 1 | — | — | — | 1 | — |
| Private label | — | — | 5 | — | 5 | — |
| **Available-for-sale debt securities** | $ 3,983 | $ (32) | $ 4,419 | $ (72) | $ 8,402 | $ (104) |

**Credit Loss Analysis**

We recognized no credit losses on HTM or AFS debt securities for the periods presented. We do not intend to sell AFS securities and we believe it is more likely than not, that we will not be required to sell them prior to recovering their amortized cost. We expect to recover the entire amortized cost on these securities.

**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 AFS or HTM debt securities were $6 million and $7 million for the three months ended June 30, 2020 and 2019, and $12 million and $14 million for the six months ended June 30, 2020 and 2019.

**(U.S. 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 June 30, 2020 | | Amount | Weighted Average Contractual Interest Rate |
|---|---|---|---|
| Due in one year or less | $ | 16,312 | 0.56% |
| One to two years | | 3,537 | 1.80% |
| Two to three years | | 2,597 | 2.14% |
| Three to four years | | 9,568 | 0.65% [a] |
| Four to five years | | 7,559 | 0.99% [a] |
| More than five years | | 8,462 | 1.91% |
| **Par value** | $ | 48,035 | 1.06% |

[a] The weighted average interest rate is relatively low when compared to other categories due to a majority of advances in this category consisting of variable rate advances, which reset periodically at market prevailing interest rates, and to a lesser extent fixed rate advances issued in a low rate environment.

The following table reconciles the par value of our advances to the carrying amount on our statements of condition as of the dates indicated.

| As of | | June 30, 2020 | | December 31, 2019 |
|---|---|---|---|---|
| **Par value** | $ | 48,035 | $ | 50,122 |
| Fair value hedging adjustments | | 1,098 | | 344 |
| Other adjustments | | 117 | | 42 |
| **Advances** | $ | 49,250 | $ | 50,508 |

The following advance borrowers exceeded 10% of our advances outstanding:

| As of June 30, 2020 | | Par Value | % of Total Outstanding |
|---|---|---|---|
| One Mortgage Partners Corp. | $ | 11,000 [a] | 22.9% |
| The Northern Trust Company | | 7,424 | 15.5% |

[a] One Mortgage Partners Corp. is a subsidiary of JPMorgan Chase Bank NA.

**(U.S. 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 | **June 30, 2020** | December 31, 2019 |
|---|---|---|
| Medium term (15 years or less) | **$ 1,253** | $ 856 |
| Long term (greater than 15 years) | **9,499** | 8,974 |
| **Unpaid principal balance** | **10,752** | 9,830 |
| Net premiums, credit enhancement, and/or deferred loan fees | **186** | 163 |
| Fair value and economic hedging adjustments | **13** | 8 |
| **MPF Loans held in portfolio, before allowance for credit losses** | **10,951** | 10,001 |
| Allowance for credit losses on MPF Loans | **(4)** | (1) |
| **MPF Loans held in portfolio, net** | **$ 10,947** | $ 10,000 |
| | | |
| Conventional mortgage loans | **$ 9,857** | $ 8,919 |
| Government Loans | **895** | 911 |
| **Unpaid principal balance** | **$ 10,752** | $ 9,830 |

The above table excludes MPF Loans acquired under the MPF Xtra®, MPF Direct, and MPF Government MBS products. See **Note 2 - Summary of Significant Accounting Policies** in our 2019 Form 10-K for information related to the accounting treatment of these off balance sheet MPF Loan products.

**COVID-19 Forbearance**

Section 4013 of 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. We have elected to suspend TDR accounting for eligible modifications under Section 4013 of the CARES Act, however we have not yet made any such modifications to loans outstanding as of June 30, 2020.

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 be formal or informal. 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.

As of June 30, 2020, there were $196 million in unpaid principal balance (UPB) of conventional loans in a forbearance plan as a result of COVID-19. $19 million in UPB of these conventional loans in forbearance had a current payment status, $70 million were 30 to 59 days past due, $99 million were 60 to 89 days past due, and $9 million were greater than 90 days past due and in nonaccrual payment status. The $196 million of conventional loans in forbearance represents 2% of our MPF Loans held in portfolio at June 30, 2020.

**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
- Federal Funds Sold and Securities Purchased Under Agreements to Resell
- Community First Fund (CFF)
- Municipal Securities and Standby Bond Purchase Agreements
- Private Label Mortgage Backed Securities

**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 advances, 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 Advances Collateral Pledge and Security Agreement with each member requires that a 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 member 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 advance exposure;
- 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 are sufficient to support a conclusion of zero allowance for credit losses as of the end of this reporting period.

**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 collateral related 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 level. The model relies on a number of assumptions, with the primary ones being the actual implied forward curves from active markets for treasuries and LIBOR and a housing price index (HPI) as follows:

- An HPI base case scenario is used
- The scenario is at the Core Based Statistical Area (CBSA) level
- A reasonable and supportable short-term forecast horizon of 12 months is used
- Next, a transition period reverting to the long-term mean, which varies based on CBSA (and on average is approximately 4 years)

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 a weak labor market and weak 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 severity and duration of the current economic downturn, as well as its potential impact on borrower defaults and loss severities. In particular, macroeconomic conditions and forecasts regarding the duration and severity of the economic downturn caused by the COVID-19 pandemic have been rapidly changing and remain highly uncertain, and it is difficult to predict exactly how borrower behavior will be impacted by these changes in economic conditions. The effectiveness of government support, customer relief and enhanced unemployment benefits should act as mitigants to credit losses, but the extent of the mitigation impact remains uncertain. Subsequent changes to this forecast and related estimates will be reflected in the provision for credit losses in future periods.

Our second quarter 2020 estimates include a significant increase in unemployment, although 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 to completing the forbearance and becoming current on the loan.

Our allowance for credit losses considers the risk sharing structure of conventional MPF loans held in portfolio. For further detail of our **MPF Risk Sharing Structure** see page F-28 in our 2019 Form 10-K. There has been no material activity in our allowance for credit losses for the six months ended June 30, 2020 or 2019.

**(U.S. Dollars in tables in millions except per share amounts unless otherwise indicated)**

The following tables summarize our MPF Loans by our key **Credit Quality Indicator**s, as further described on page F-29 in our 2019 Form 10-K. The recorded investment at December 31, 2019 includes accrued interest receivable whereas the amortized cost at June 30, 2020 excludes accrued interest receivable. See **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.

| | **June 30, 2020** | | | December 31, 2019 |
|---|---|---|---|---|
| | **Amortized Cost by Origination Year** | | | Recorded Investment |
| | **2016 to 2020** | **Prior to 2016** | **Total** | |
| Past due 30-59 days | **$ 109** | **$ 40** | **$ 149** | $ 82 |
| Past due 60-89 days | **106** | **26** | **132** | 19 |
| Past due 90 days or more | **21** | **25** | **46** | 28 |
| **Past due** | **236** | **91** | **327** | 129 |
| Current | **8,653** | **1,061** | **9,714** | 8,994 |
| **Total** | **$ 8,889** | **$ 1,152** | **$ 10,041** | $ 9,123 |

| | **June 30, 2020** | | | December 31, 2019 | | |
|---|---|---|---|---|---|---|
| | **Amortized Cost** | | | Recorded Investment | | |
| As of | **Conventional** | **Government** | **Total** | Conventional | Government | Total |
| In process of foreclosure | **$ 10** | **$ 5** | **$ 15** | $ 10 | $ 4 | $ 14 |
| Serious delinquency rate | **0.48%** | **1.91%** | **0.60%** | 0.31% | 1.67% | 0.44% |
| Past due 90 days or more and still accruing interest | **$ 5** | **$ 16** | **$ 21** | $ 4 | $ 16 | $ 20 |
| Loans on nonaccrual status | **62** | **—** | **62** | | | |
| Loans on nonaccrual status with no allowance for credit losses | **31** | **—** | **31** | | | |
| Loans without an allowance for credit losses and on nonaccrual status | | | | 29 | — | 29 |
| Unpaid principal balance of impaired loans without an allowance for credit losses | | | | 31 | — | 31 |

**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 June 30, 2020 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. For securities purchased under an agreement to resell, we use the collateral maintenance provision practical expedient, which allows expected credit losses to be measured based on the difference between fair value of the collateral and the investment's amortized cost provided the borrower is expected to replenish the collateral in accordance with the contractual terms. 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 June 30, 2020. We also did not establish an allowance for credit losses for overnight securities purchased under an agreement to resell as of June 30, 2020 since overnight securities purchased under agreements to resell were paid according to their contractual terms.

**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 expected loss rates on representative rated securities and average tenor of the outstanding portfolio.

As of June 30, 2020 we had $45 million in Fund loans outstanding, unchanged from $45 million at December 31, 2019. We had no allowance as of December 31, 2019, under the pre-CECL accounting policy, as we had not incurred any credit losses to that date. Under CECL effective January 1, 2020, we are recording allowances for credit losses on an expected basis over the life of the loans, although as of June 30, 2020, all Fund loans were current, and none were past due or on nonaccrual status. Our allowance for credit losses on Fund loans was $7 million at June 30, 2020.

**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 a de minimis 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 June 30, 2020.

**PLMBS**

We invested in senior tranches of Private Label Mortgage Backed Securities (PLMBS) that are classified as Prime, Alt-A, or Subprime. The majority of PLMBS are HTM. The HTM PLMBS are subject to the forward-looking model of CECL through the analysis of projected cash flows. The projected cash flows exceed the amortized cost of our PLMBS, and consequently, there was no additional allowance for credit losses for these PLMBS during the second quarter of 2020. We assess an HTM separately from AFS PLMBS. We assess an AFS PLMBS for credit losses whenever its fair value is less than its amortized cost as of the reporting date.

Our evaluation includes estimating the projected cash flows that we are likely to collect based on an assessment of available information, including the structure of the applicable security and certain assumptions such as:

- the remaining payment terms for the security;
- prepayment speeds based on underlying loan-level borrower and loan characteristics;
- expected default rates based on underlying loan-level borrower and loan characteristics;
- expected loss severity on the collateral supporting each security based on underlying loan-level borrower and loan characteristics;
- expected housing price changes; and
- expected interest-rate assumptions.

The results of these models can vary significantly with changes in assumptions and expectations. The projected cash flows reflect a best estimate scenario and include a base case housing price forecast and a base case housing price recovery path.

As of June 30, 2020, 6% of our private-label MBS (AFS and HTM combined) were rated single-A, or above, by a nationally recognized statistical rating organization and the remaining securities were either rated less than single-A, or were unrated; unchanged from 6% at December 31, 2019.

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

**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 the Agencies 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**

As permitted under the new CECL accounting standard, we elected to present accrued interest receivable separately for loans and HTM debt securities which are carried at amortized cost. We also elected not to measure an allowance for credit losses on accrued interest receivables as we reverse accrued interest on a monthly basis in the event of an interest shortfall.

The following table summarizes our accrued interest receivable by portfolio segment.

| Financial Instrument Type | June 30, 2020 | December 31, 2019 |
|---|---|---|
| Total MPF Loans held in portfolio | **$ 56** | $ 52 |
| HTM securities | **7** | 11 |
| Interest bearing deposits | **—** | 2 |
| Advances | **43** | 83 |
| Other | **—** | 1 |
| **Accrued interest receivable** | **$ 106** | $ 149 |

**Note 9 – Derivatives and Hedging Activities**

Refer to **Note 2 - Summary of Significant Accounting Policies** in our 2019 Form 10-K 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 Derivatives Clearing Organizations (DCOs) through Futures Commission Merchants (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. 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 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 June 30, 2020, 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** in our 2019 Form 10-K 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 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). 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 $1 million at June 30, 2020.

*Cleared Derivative Transactions*: Cleared derivative transactions are subject to variation and initial margin requirements established by the DCO and its clearing members. As a result of rule changes adopted by our DCOs, 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** to the financial statements in our 2019 Form 10-K 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 derivatives. The DCO determines initial margin requirements for cleared derivatives. In this regard, we pledged $649 million of investment securities that can be sold or repledged, as part of our initial margin related to cleared derivative transactions at June 30, 2020. 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 June 30, 2020.

**(U.S. Dollars in tables in millions except per share amounts unless otherwise indicated)**

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.

| | **June 30, 2020** | | | December 31, 2019 | | |
|---|---|---|---|---|---|---|
| As of | **Notional Amount** | **Derivative Assets** | **Derivative Liabilities** | Notional Amount | Derivative Assets | Derivative Liabilities |
| **Derivatives in hedge accounting relationships-** | | | | | | |
| Interest rate contracts | **$ 38,433** | **$ 84** | **$ 1,116** | $ 38,509 | $ 76 | $ 257 |
| **Derivatives not in hedge accounting relationships-** | | | | | | |
| Interest rate contracts | **24,520** | **161** | **198** | 36,404 | 110 | 89 |
| Other | **5,331** | **20** | **22** | 1,122 | 2 | 1 |
| **Derivatives not in hedge accounting relationships** | **29,851** | **181** | **220** | 37,526 | 112 | 90 |
| **Gross derivative amount before netting adjustments and cash collateral** | **$ 68,284** | **265** | **1,336** | $ 76,035 | 188 | 347 |
| Netting adjustments and cash collateral | | **(231)** | **(1,312)** | | (182) | (333) |
| **Derivatives on statements of condition** | | **$ 34** | **$ 24** | | $ 6 | $ 14 |
| | **Cash Collateral** | | | **Cash Collateral** | | |
| Cash collateral posted and related accrued interest | **$ 1,103** | | | $ 187 | | |
| Cash collateral received and related accrued interest | **21** | | | 35 | | |

The following table presents the noninterest income - derivatives and hedging activities as presented in the statements of income.

| | Three months ended June 30, | | Six months ended June 30, | |
|---|---|---|---|---|
| For the periods ending | **2020** | 2019 | **2020** | 2019 |
| **Economic hedges -** | | | | |
| Interest rate contracts | **$ (11)** | (30) | **$ (159)** | (35) |
| Other | **(10)** | 3 | **(4)** | 5 |
| **Economic hedges** | **(21)** | (27) | **(163)** | (30) |
| Variation margin on daily settled cleared derivatives | **—** | 3 | **4** | 4 |
| **Noninterest income - Derivatives and hedging activities** | **$ (21)** | $ (24) | **$ (159)** | $ (26) |

**(U.S. Dollars in tables in millions except per share amounts unless otherwise indicated)**

The following table presents details regarding the offsetting of our 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.

| | Derivative Assets | | | Derivative Liabilities | | |
|---|---|---|---|---|---|---|
| | Bilateral | Cleared | Total | Bilateral | Cleared | Total |
| **As of June 30, 2020** | | | | | | |
| **Derivatives with legal right of offset -** | | | | | | |
| Gross recognized amount | **$ 95** | **$ 151** | **$ 246** | **$ 1,177** | **$ 139** | **$ 1,316** |
| Netting adjustments and cash collateral | **(91)** | **(140)** | **(231)** | **(1,173)** | **(139)** | **(1,312)** |
| **Derivatives with legal right of offset - net** | **4** | **11** | **15** | **4** | **—** | **4** |
| Derivatives without legal right of offset | **19** | **—** | **19** | **20** | **—** | **20** |
| **Derivatives on statements of condition** | **23** | **11** | **34** | **24** | **—** | **24** |
| **Net amount** | **$ 23** | **$ 11** | **$ 34** | **$ 24** | **$ —** | **$ 24** |
| | | | | | | |
| As of December 31, 2019 | | | | | | |
| **Derivatives with legal right of offset -** | | | | | | |
| Gross recognized amount | $ 129 | $ 57 | $ 186 | $ 281 | $ 65 | $ 346 |
| Netting adjustments and cash collateral | (127) | (55) | (182) | (279) | (54) | (333) |
| **Derivatives with legal right of offset - net** | 2 | 2 | 4 | 2 | 11 | 13 |
| Derivatives without legal right of offset | 2 | — | 2 | 1 | — | 1 |
| **Derivatives on statements of condition** | 4 | 2 | 6 | 3 | 11 | 14 |
| **Less:** | | | | | | |
| Noncash collateral received or pledged and cannot be sold or repledged | — | — | — | — | 11 | 11 |
| **Net amount** | $ 4 | $ 2 | $ 6 | $ 3 | $ — | $ 3 |

At June 30, 2020, we had $649 million of additional credit exposure on cleared derivatives due to pledging of noncash collateral to our DCOs for initial margin, which exceeded our derivative position. We had $421 million of comparable exposure at December 31, 2019.

**(U.S. 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.

| | Gain (Loss) on Derivative | Gain (Loss) on Hedged Item | Amount Recorded in Net Interest Income |
|---|---|---|---|
| **Three months ended June 30, 2020** | | | |
| Available-for-sale debt securities | **$ (80)** | **$ 28** | **$ (52)** |
| Advances | **(63)** | **38** | **(25)** |
| Consolidated obligation bonds | **31** | **5** | **36** |
| **Total** | **$ (112)** | **$ 71** | **$ (41)** |
| Three months ended June 30, 2019 | | | |
| Available-for-sale debt securities | $ (319) | $ 311 | $ (8) |
| Advances | (179) | 189 | 10 |
| Consolidated obligation bonds | 128 | (149) | (21) |
| **Total** | $ (370) | $ 351 | $ (19) |
| **Six months ended June 30, 2020** | | | |
| Available-for-sale debt securities | **$ (1,338)** | **$ 1,299** | **$ (39)** |
| Advances | **(793)** | **753** | **(40)** |
| Consolidated obligation bonds | **283** | **(240)** | **43** |
| **Total** | **$ (1,848)** | **$ 1,812** | **$ (36)** |
| Six months ended June 30, 2019 | | | |
| Available-for-sale debt securities | $ (523) | $ 504 | $ (19) |
| Advances | (273) | 295 | 22 |
| Consolidated obligation bonds | 232 | (277) | (45) |
| **Total** | $ (564) | $ 522 | $ (42) |

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. The line for MPF Loans held for portfolio relates to discontinued closed fair value hedges that are being amortized over the remaining life of the loans, as of June 30, 2020 we did not have any active fair value hedges on our MPF Loans.

| As of June 30, 2020 | 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 |
|---|---|---|---|---|
| Advances | **$ 14,336** | **$ 1,095** | **$ —** | **$ 1,095** |
| Available-for-sale securities | **13,861** | **1,948** | **—** | **1,948** |
| MPF Loans held for portfolio | **617** | **—** | **11** | **11** |
| Consolidated obligation bonds | **12,141** | **319** | **(26)** | **293** |

**(U.S. 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 10 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 $4 million as of June 30, 2020.

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 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.

| | Gross Amount Initially Recognized in AOCI | Amount Reclassified from AOCI into Net Interest Income |
|---|---|---|
| **Three months ended June 30, 2020** | | |
| Discount notes | **$ (10)** | **$ (5)** |
| Bonds | **—** | **(1)** |
| **Total** | **$ (10)** | **$ (6)** |
| Three months ended June 30, 2019 | | |
| Discount notes | $ (19) | $ (7) |
| Bonds | — | (1) |
| **Total** | $ (19) | $ (8) |
| **Six months ended June 30, 2020** | | |
| Discount notes | **$ (58)** | **$ (9)** |
| Bonds | **—** | **(1)** |
| **Total** | **$ (58)** | **$ (10)** |
| Six months ended June 30, 2019 | | |
| Discount notes | $ (32) | $ (18) |
| Bonds | — | (1) |
| **Total** | $ (32) | $ (19) |

(U.S. 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 | June 30, 2020 | December 31, 2019 |
|---|---|---|
| Consolidated obligation discount notes - carrying amount | $ 37,440 | $ 41,675 |
| Consolidated obligation discount notes - par amount | 37,452 | 41,770 |
| Weighted Average Interest Rate | 0.29% | 1.61% |

The following table presents maturities and weighted average interest rates on our consolidated obligation bonds, 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 June 30, 2020 | Contractual Maturity | Weighted Average Interest Rate | By Maturity or Next Call Date |
|---|---|---|---|
| Due in one year or less | $ 30,412 | 0.38% | $ 37,510 |
| One to two years | 7,116 | 1.24% | 7,509 |
| Two to three years | 4,722 | 2.21% | 3,781 |
| Three to four years | 1,651 | 2.05% | 1,085 |
| Four to five years | 2,621 | 1.60% | 1,194 |
| Thereafter | 4,948 | 2.82% | 391 |
| **Total par value** | $ 51,470 | 1.02% | $ 51,470 |

The following table presents consolidated obligation bonds outstanding by call feature:

| As of | June 30, 2020 | December 31, 2019 |
|---|---|---|
| Noncallable | $ 41,270 | $ 35,556 |
| Callable | 10,200 | 14,842 |
| **Par value** | 51,470 | 50,398 |
| Fair value hedging adjustments | 293 | 53 |
| Other adjustments | (3) | 23 |
| **Consolidated obligation bonds** | $ 51,760 | $ 50,474 |

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 June 30, 2020, and December 31, 2019. See **Note 16 - Commitments and Contingencies** in our 2019 Form 10-K for further details.

| | June 30, 2020 | | | December 31, 2019 | | |
|---|---|---|---|---|---|---|
| Par values as of | Bonds | Discount Notes | Total | Bonds | Discount Notes | Total |
| FHLB System total consolidated obligations | $ 524,076 | $ 391,677 | $ 915,753 | $ 620,942 | $ 404,953 | $1,025,895 |
| FHLB Chicago as primary obligor | 51,470 | 37,452 | 88,922 | 50,398 | 41,770 | 92,168 |
| As a percent of the FHLB System | 10% | 10% | 10% | 8% | 10% | 9% |

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

**Note 11 – 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. Class B1 activity stock is available to support a member's activity stock requirement. Class B2 membership stock is available to support a member's membership stock requirement and any activity stock requirement. See **Note 12 – Capital and Mandatorily Redeemable Capital Stock (MRCS)** to the financial statements in our 2019 Form 10-K for further information on our capital stock and MRCS.

**Minimum Capital Requirements**

For details on our minimum capital requirements, including how the ratios below were calculated, see **Minimum Capital Requirements** on page F-39 of our 2019 Form 10-K. We complied with our minimum regulatory capital requirements as shown below.

| | **June 30, 2020** | | December 31, 2019 | |
|---|---|---|---|---|
| | **Requirement** | **Actual** | Requirement | Actual |
| Total regulatory capital | **$ 3,869** | **$ 5,999** | $ 3,993 | $ 5,807 |
| Total regulatory capital ratio | **4.00%** | **6.20%** | 4.00% | 5.82% |
| Leverage capital | **$ 4,837** | **$ 8,997** | $ 4,991 | $ 8,710 |
| Leverage capital ratio | **5.00%** | **9.30%** | 5.00% | 8.73% |
| Risk-based capital | **$ 1,380** | **$ 5,999** | $ 1,141 | $ 5,807 |

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.

The following members had regulatory capital stock exceeding 10% of our total regulatory capital stock outstanding (which includes MRCS):

| **As of June 30, 2020** | **Regulatory Capital Stock Outstanding** | **% of Total Outstanding** | **Amount of Which is Classified as a Liability (MRCS)** |
|---|---|---|---|
| One Mortgage Partners Corp. | **$ 245** [a] | **11.5%** | **$ 245** |
| The Northern Trust Company | **245** | **11.5%** | **—** |

[a] One Mortgage Partners Corp. is a subsidiary of JPMorgan Chase Bank NA.

**Dividends**

Our ability to pay dividends is subject to the FHLB Act and FHFA regulations. On July 30, 2020 our Board of Directors declared a 5.00% dividend (annualized) for Class B1 activity stock and a 2.25% dividend (annualized) for Class B2 membership stock based on our preliminary financial results for the second quarter of 2020. This dividend totaled $25 million (recorded as $21 million dividends on capital stock and $4 million interest expense on mandatorily redeemable capital stock) and is scheduled for payment on August 13, 2020. 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.

**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 6 and in Other Financing Activities in our **Condensed Statements of Cash Flows** on page 8.

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

**Note 12 - Accumulated Other Comprehensive Income (Loss)**

The following table summarizes the gains (losses) in AOCI for the reporting periods indicated.

| | Net Unrealized - Available-for-sale Debt Securities | Non-credit OTTI - Held-to-maturity Debt Securities | Net Unrealized - Cash Flow Hedges | Post-Retirement Plans | Total in AOCI |
|---|---|---|---|---|---|
| **Three months ended June 30, 2020** | | | | | |
| **Beginning balance** | **$ (527)** | **$ (81)** | **$ (82)** | **$ (21)** | **$ (711)** |
| Change in the period recorded to the statements of condition, before reclassifications to statements of income | **347** | **5** | **(10)** | **—** | **342** |
| **Amounts reclassified in period to statements of income:** | | | | | |
| Net interest income | **—** | **—** | **6** | | **6** |
| **Ending balance** | **$ (180)** | **$ (76)** | **$ (86)** | **$ (21)** | **$ (363)** |
| Three months ended June 30, 2019 | | | | | |
| **Beginning balance** | $ 209 | $ (108) | $ (33) | $ (7) | $ 61 |
| Change in the period recorded to the statements of condition, before reclassifications to statements of income | (17) | 7 | (19) | — | (29) |
| **Amounts reclassified in period to statements of income:** | | | | | |
| Net interest income | — | — | 8 | | 8 |
| Noninterest expense | | | | 1 | 1 |
| **Ending balance** | $ 192 | $ (101) | $ (44) | $ (6) | $ 41 |
| **Six months ended June 30, 2020** | | | | | |
| **Beginning balance** | **$ 104** | **$ (85)** | **$ (38)** | **$ (10)** | **$ (29)** |
| Change in the period recorded to the statements of condition, before reclassifications to statements of income | **(284)** | **9** | **(58)** | **(12)** | **(345)** |
| **Amounts reclassified in period to statements of income:** | | | | | |
| Net interest income | **—** | | **10** | | **10** |
| Noninterest expense | | | | **1** | **1** |
| **Ending balance** | **$ (180)** | **$ (76)** | **$ (86)** | **$ (21)** | **$ (363)** |
| Six months ended June 30, 2019 | | | | | |
| **Beginning balance** | $ 211 | $ (114) | $ (31) | $ (11) | $ 55 |
| Change in the period recorded to the statements of condition, before reclassifications to statements of income | (19) | 13 | (32) | 4 | (34) |
| **Amounts reclassified in period to statements of income:** | | | | | |
| Net interest income | — | — | 19 | | 19 |
| Noninterest expense | | | | 1 | 1 |
| **Ending balance** | $ 192 | $ (101) | $ (44) | $ (6) | $ 41 |

**(U.S. Dollars in tables in millions except per share amounts unless otherwise indicated)**

**Note 13 - Fair Value**

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** in our 2019 Form 10-K. 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** in our 2019 Form 10-K for our fair value policies and **Note 15 - Fair Value** in our 2019 Form 10-K for our valuation techniques and significant inputs. See **Note 9 - Derivatives and Hedging Activities** for more information on the Netting and Cash Collateral amounts.

| | Carrying Amount | Fair Value | Level 1 | Level 2 | Level 3 | Netting & Cash Collateral |
|---|---|---|---|---|---|---|
| **June 30, 2020** | | | | | | |
| **Carried at amortized cost** | | | | | | |
| Cash and due from banks | $ 48 | $ 48 | $ 48 | $ — | $ — | |
| Interest bearing deposits | 1,255 | 1,255 | 1,255 | — | — | |
| Federal Funds sold and securities purchased under agreements to resell | 8,471 | 8,471 | — | 8,471 | — | |
| Held-to-maturity debt securities | 1,668 | 1,887 | — | 1,470 | 417 | |
| Advances | 47,369 | 47,537 | — | 47,537 | — | |
| MPF Loans held in portfolio, net | 10,919 | 11,163 | — | 11,157 | 6 | |
| Other assets | 106 | 106 | — | 106 | — | |
| **Carried at fair value on a recurring basis** | | | | | | |
| Trading debt securities | 5,971 | 5,971 | — | 5,971 | — | |
| Government related non-MBS, ABS, and MBS | 18,609 | 18,609 | — | 18,609 | — | |
| Private label residential MBS | 31 | 31 | — | — | 31 | |
| **Available-for-sale debt securities** | 18,640 | 18,640 | — | 18,609 | 31 | |
| Advances - fair value option election | 1,881 | 1,881 | — | 1,881 | — | |
| Derivative assets | 34 | 34 | — | 265 | — | $ (231) |
| Other assets - held for sale at fair value | 130 | 130 | — | 130 | — | |
| **Carried at fair value on a nonrecurring basis** | | | | | | |
| MPF Loans held in portfolio, net | 28 | 28 | — | — | 28 | |
| **Financial assets** | 96,520 | $ 97,151 | $ 1,303 | $ 95,597 | $ 482 | $ (231) |
| Other non financial assets | 211 | | | | | |
| **Assets** | $ 96,731 | | | | | |
| **Carried at amortized cost** | | | | | | |
| Deposits | $ (1,465) | $ (1,465) | $ — | $ (1,465) | $ — | |
| Consolidated obligation discount notes | (25,942) | (25,946) | — | (25,946) | — | |
| Consolidated obligation bonds | (49,893) | (50,307) | — | (50,307) | — | |
| Mandatorily redeemable capital stock | (289) | (289) | (289) | — | — | |
| Other liabilities | (109) | (109) | — | (109) | — | |
| **Carried at fair value on a recurring basis** | | | | | | |
| Consolidated obligation discount notes - fair value option | (11,498) | (11,498) | — | (11,498) | — | |
| Consolidated obligation bonds - fair value option | (1,867) | (1,867) | — | (1,867) | — | |
| Derivative liabilities | (24) | (24) | — | (1,336) | — | $ 1,312 |
| **Financial liabilities** | (91,087) | $ (91,505) | $ (289) | $ (92,528) | $ — | $ 1,312 |
| Other non financial liabilities | (297) | | | | | |
| **Liabilities** | $ (91,384) | | | | | |

**Notes to Financial Statements - (Unaudited)**
**(U.S. Dollars in tables in millions except per share amounts unless otherwise indicated)**

| | Carrying Amount | Fair Value | Level 1 | Level 2 | Level 3 | Netting |
|---|---|---|---|---|---|---|
| December 31, 2019 | | | | | | |
| **Carried at amortized cost** | | | | | | |
| Cash and due from banks | $ 29 | $ 29 | $ 29 | $ — | $ — | |
| Interest bearing deposits | 1,680 | 1,680 | 1,680 | — | — | |
| Federal Funds sold and securities purchased under agreements to resell | 14,106 | 14,106 | — | 14,106 | — | |
| Held-to-maturity debt securities | 2,381 | 2,615 | — | 2,138 | 477 | |
| Advances | 47,700 | 47,780 | — | 47,780 | — | |
| MPF Loans held in portfolio, net | 9,995 | 10,189 | — | 10,183 | 6 | |
| Other assets | 149 | 149 | — | 149 | — | |
| **Carried at fair value on a recurring basis** | | | | | | |
| Trading debt securities | 4,648 | 4,648 | — | 4,648 | — | |
| Government related non-MBS, ABS, and MBS | 16,032 | 16,032 | — | 16,032 | — | |
| Private label residential MBS | 35 | 35 | — | — | 35 | |
| **Available-for-sale debt securities** | 16,067 | 16,067 | — | 16,032 | 35 | |
| Advances - fair value option election | 2,808 | 2,808 | — | 2,808 | — | |
| Derivative assets | 6 | 6 | 2 | 186 | — | $ (182) |
| Other assets - held for sale at fair value | 83 | 83 | — | 83 | — | |
| **Carried at fair value on a nonrecurring basis** | | | | | | |
| MPF Loans held in portfolio, net | 5 | 5 | — | — | 5 | |
| Other assets | 1 | 1 | — | — | 1 | |
| **Financial assets** | 99,658 | $ 100,166 | $ 1,711 | $ 98,113 | $ 524 | $ (182) |
| Other non financial assets | 169 | | | | | |
| **Assets** | $ 99,827 | | | | | |
| **Carried at amortized cost** | | | | | | |
| Deposits | (847) | (847) | — | (847) | — | |
| Consolidated obligation discount notes | (23,709) | (23,709) | — | (23,709) | — | |
| Consolidated obligation bonds | (42,490) | (42,728) | — | (42,728) | — | |
| Mandatorily redeemable capital stock | (324) | (324) | (324) | — | — | |
| Other liabilities | (158) | (158) | — | (158) | — | |
| **Carried at fair value on a recurring basis** | | | | | | |
| Consolidated obligation discount notes - fair value option | (17,966) | (17,966) | — | (17,966) | — | |
| Consolidated obligation bonds - fair value option | (7,984) | (7,984) | — | (7,984) | — | |
| Derivative liabilities | (14) | (14) | — | (347) | — | 333 |
| **Financial liabilities** | (93,492) | $ (93,730) | $ (324) | $ (93,739) | $ — | $ 333 |
| Other non financial liabilities | (881) | | | | | |
| **Liabilities** | $ (94,373) | | | | | |

We had no transfers between levels for the periods shown.

**(U.S. Dollars in tables in millions except per share amounts unless otherwise indicated)**

**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** on page 3. Refer to our **Note 2 – Summary of Significant Accounting Policies** to the financial statements in our 2019 Form 10-K for further details.

The following table presents the changes in fair values of financial assets and liabilities carried at fair value under the fair value option. These changes were recognized in noninterest income - instruments held under the fair value option in our statements of income.

| | Three months ended June 30, | | Six months ended June 30, | |
|---|---|---|---|---|
| | **2020** | 2019 | **2020** | 2019 |
| Advances | **$ 18** | $ 24 | **$ 78** | $ 34 |
| Other assets | **—** | — | **2** | — |
| Discount notes | **14** | — | **—** | — |
| Consolidated obligation bonds | **4** | (7) | **(4)** | (15) |
| **Noninterest income - Instruments held under fair value option** | **$ 36** | $ 17 | **$ 76** | $ 19 |

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.

| | **June 30, 2020** | | December 31, 2019 | |
|---|---|---|---|---|
| As of | **Advances** | **Consolidated Obligation Bonds** | Advances | Consolidated Obligation Bonds |
| Unpaid principal balance | **$ 1,762** | **$ 1,861** | $ 2,768 | $ 7,955 |
| Fair value over (under) UPB | **119** | **6** | 40 | 29 |
| Fair value | **$ 1,881** | **$ 1,867** | $ 2,808 | $ 7,984 |

**(U.S. Dollars in tables in millions except per share amounts unless otherwise indicated)**

**Note 14 – Commitments and Contingencies**

The following table shows our commitments outstanding, which represent off-balance sheet obligations.

| | **June 30, 2020** | | | December 31, 2019 | | |
|---|---|---|---|---|---|---|
| As of | **Expire within one year** | **Expire after one year** | **Total** | Expire within one year | Expire after one year | Total |
| Member standby letters of credit | **$ 18,370** | **$ 6,455** [a] | **$ 24,825** | $ 18,077 | $ 5,774 [a] | $ 23,851 |
| MPF delivery commitments | **2,630** | **—** | **2,630** | 615 | — | 615 |
| Advance commitments | **1,650** | **25** | **1,675** | 8 | 30 | 38 |
| Housing authority standby bond purchase agreements | **11** | **426** | **437** | 32 | 409 | 441 |
| Unsettled consolidated obligation discount notes | **—** | **—** | **—** | 750 | — | 750 |
| Unsettled consolidated obligation bonds | **14** | **—** | **14** | 81 | — | 81 |
| Other | **3** | **—** | **3** | 1 | — | 1 |
| **Commitments** | **$ 22,678** | **$ 6,906** | **$ 29,584** | $ 19,564 | $ 6,213 | $ 25,777 |

[a] Contains $5.7 billion and $4.2 billion of member standby letters of credit as of June 30, 2020, and December 31, 2019, which were renewable annually.

For a description of defined terms see **Note 16 - Commitments and Contingencies** to the financial statements in our 2019 Form 10-K.

**(U.S. Dollars in tables in millions except per share amounts unless otherwise indicated)**

## Note 15 – 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 periods presented. The related net income impacts to our Statements of Income were not material.

| As of | June 30, 2020 | December 31, 2019 |
|---|---|---|
| Assets - Advances | $ 249 | $ 696 |
| Liabilities - Deposits | 15 | 10 |
| Equity - Capital Stock | 16 | 31 |

*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.**

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

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

| | June 30, 2020 | March 31, 2020 | December 31, 2019 | September 30, 2019 | June 30, 2019 |
|---|---|---|---|---|---|
| **Selected statements of condition data** | | | | | |
| Investments [a] | $ 36,005 | $ 37,249 | $ 38,882 | $ 35,475 | $ 36,739 |
| Advances | 49,250 | 55,005 | 50,508 | 57,629 | 51,141 |
| MPF Loans held in portfolio, net | 10,947 | 10,647 | 10,000 | 9,004 | 8,265 |
| Total assets | 96,731 | 103,443 | 99,827 | 102,543 | 96,559 |
| Consolidated obligation discount notes, net | 37,440 | 47,095 | 41,675 | 47,647 | 44,893 |
| Consolidated obligation bonds, net | 51,760 | 48,593 | 50,474 | 46,738 | 43,941 |
| Mandatorily redeemable capital stock recorded as a liability | 289 | 328 | 324 | 324 | 323 |
| Capital stock | 1,837 | 1,954 | 1,713 | 1,846 | 1,678 |
| Retained earnings | 3,873 | 3,822 | 3,770 | 3,722 | 3,663 |
| Total capital | 5,347 | 5,065 | 5,454 | 5,546 | 5,382 |
| **Other selected data at period end** | | | | | |
| Member standby letters of credit outstanding | $ 24,825 | $ 25,192 | $ 23,851 | $ 23,753 | $ 25,790 |
| MPF Loans par value outstanding - FHLB System [b] | 71,768 | 70,347 | 68,759 | 65,669 | 62,574 |
| MPF Loans par value outstanding - FHLB Chicago PFIs [b] | 18,772 | 17,954 | 17,364 | 16,441 | 15,631 |
| FHLB system consolidated obligations par value outstanding | 915,753 | 1,174,670 | 1,025,895 | 1,010,271 | 1,048,412 |
| Number of members | 687 | 685 | 689 | 697 | 695 |
| Total employees (full and part time) | 488 | 487 | 488 | 484 | 477 |
| **Selected statements of income data** | | | | | |
| Net interest income after provision for credit losses | $ 134 | $ 144 | $ 111 | $ 113 | $ 116 |
| Noninterest income | 9 | 2 | 32 | 29 | 21 |
| Noninterest expense | 85 | 57 | 67 | 54 | 52 |
| Net income | 52 | 80 | 68 | 79 | 76 |
| **Other selected MPF data during the periods [b]** | | | | | |
| MPF Loans par value amounts funded - FHLB System | $ 8,641 | $ 4,929 | $ 7,346 | $ 6,391 | $ 4,480 |
| Quarterly number of PFIs funding MPF products - FHLB System | 764 | 783 | 808 | 794 | 753 |
| MPF Loans par value amounts funded - FHLB Chicago PFIs | $ 2,985 | $ 1,497 | $ 2,094 | $ 1,699 | $ 1,224 |
| Quarterly number of PFIs funding MPF products - FHLB Chicago | 195 | 197 | 196 | 192 | 189 |
| **Selected ratios (rates annualized)** | | | | | |
| Total regulatory capital to assets ratio | 6.20% | 5.90% | 5.82% | 5.75% | 5.87% |
| Market value of equity to book value of equity | 104% | 103% | 105% | 105% | 105% |
| Primary mission asset ratio [c] | 72.0% | 71.6% | 72.3% | 72.5% | 72.9% |
| Dividend rate class B1 activity stock-period paid | 5.00% | 5.00% | 5.00% | 5.00% | 5.00% |
| Dividend rate class B2 membership stock-period paid | 2.25% | 2.25% | 2.25% | 2.25% | 2.25% |
| Return on average assets | 0.20% | 0.30% | 0.27% | 0.32% | 0.31% |
| Return on average equity | 3.41% | 5.41% | 4.74% | 5.55% | 5.30% |
| Average equity to average assets | 5.87% | 5.55% | 5.70% | 5.77% | 5.85% |
| Net yield on average interest-earning assets | 0.54% | 0.57% | 0.44% | 0.46% | 0.49% |
| Return on average Regulatory Capital spread to three month LIBOR index | 2.88% | 3.80% | 2.71% | 3.29% | 2.81% |
| Cash dividends-period paid | $ 20 | $ 21 | $ 20 | $ 20 | $ 21 |
| Dividend payout ratio-period paid | 38% | 26% | 29% | 25% | 28% |

[a] Includes investment debt securities, interest bearing deposits, Federal Funds sold, and securities purchased under agreements to resell.

[b] Includes all MPF products, whether on or off our balance sheet. See **Mortgage Partnership Finance Program** on page 8 in our 2019 Form 10-K.

[c] Annual average year to date basis. 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 in our 2019 Form 10-K for more information.

**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 coronavirus disease 2019 (COVID-19) pandemic on the global and national economies and on our and our members' businesses;
- changes in the demand by our members for advances, including 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 we are able to maintain current capital stock requirements and/or 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, and any amendments to our capital plan, will impact borrowing by our 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, 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, or other disruptive event;
- 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;

- 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 the London Interbank Offered Rate (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 to the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act) and related regulations and proposals and legislation related to housing finance and GSE reform; changes by 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, and liquidity requirements by the FHFA; and increased guidance from the FHFA impacting our balance sheet management;

- 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 attract and retain skilled employees;

- 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** in our 2019 Form 10-K on page 18 and **Risk Factors** in our Quarterly Report on Form 10-Q for the quarter ended March 31, 2020 (Q1 2020 Form 10-Q) on page 63.

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.

## Executive Summary

**Second Quarter 2020 Financial Highlights**

At the end of the second quarter of 2020, activity on advances, letters of credit, and MPF Program loans outstanding remained strong due to market uncertainties and historically low rates:

- Advances outstanding decreased $1.3 billion to $49.2 billion at June 30, 2020, down from $50.5 billion at December 31, 2019. 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. These factors reduced their need for advances.
- MPF Loans held in portfolio increased to $10.9 billion at June 30, 2020, up from $10.0 billion at December 31, 2019, due mainly to increased volume from loan origination activity driven by refinancing as mortgage rates declined overall.
- Total investment securities increased 14% to $26.3 billion at June 30, 2020, up from $23.1 billion at December 31, 2019, as purchases exceeded paydowns and maturities.
- Total assets decreased to $96.7 billion as of June 30, 2020, compared to $99.8 billion as of December 31, 2019, due primarily to a decline in liquid assets we hold for meeting the liquidity needs of our members.
- Letters of credit commitments increased to $24.8 billion at June 30, 2020, up from $23.9 billion at December 31, 2019, as members utilized our letters of credit in lieu of securities to secure increased deposits from municipalities during the COVID-19 pandemic.
- We recorded net income of $52 million in the second quarter of 2020, down from $76 million in the second quarter of 2019, primarily due to our support of our COVID-19 Relief Program. In April, we committed to spend approximately $30 million in COVID-19 relief funding, $19 million of which was provided to members in the second quarter of 2020. We anticipate continuing to deploy these relief funds to members via a subsequent grant program to be announced in the third quarter.
- Net interest income after provision for credit losses for the second quarter of 2020 was $134 million, up from $116 million for the second quarter of 2019, primarily due to the receipt of approximately $15 million of advance prepayment fees compared to $3 million in the same period a year ago, along with calling certain higher rate callable debt relative to the same period a year ago.
- In the second quarter of 2020, noninterest income was $9 million, down $12 million from $21 million for the second quarter of 2019, primarily due to unrealized losses on our trading securities.
- We remained in compliance with all of our regulatory capital requirements as of June 30, 2020.

## Summary and Outlook

As we consider the first half of the year and the damage wrought by the pandemic and the measures taken to “bend the curve,” we have been inspired by our members taking extraordinary measures to support their communities. With the likelihood that such conditions will persist for a while to come, providing members with access to the liquidity and term funding they need to support their businesses and their communities is our most essential role and we are in a strong position to support them.

*COVID-19 Relief Program*

Early on, we recognized that the economic consequences of the pandemic required extraordinary actions by our members and that we needed to take extraordinary steps to support our members. On April 20, 2020, we announced the Bank's COVID-19 Relief Program which was designed to assist our members to provide support to their customers and communities. We were pleased that 98% of our membership participated in the program using our COVID-19 Relief Advances, our COVID-19 Relief Grants, or both.

Program highlights include:

- COVID-19 Relief Advance: $1.9 billion in subsidized, 0% advances to support 506 members, representing approximately $6 million of interest rate subsidy.
- COVID-19 Relief Grant: $13 million in grants were distributed by 654 members to a variety of beneficiaries, including but not limited to food pantries, small businesses (including many restaurants), health clinics, fire departments, community service organizations, family and social service organizations, as well as day care and education providers.

*LIBOR Transition*

We continue to prepare for and monitor market developments associated with the planned phase out of the London Interbank Offered Rate (LIBOR) by December 31, 2021. In addition, we continue to follow the transition guidance provided by our regulator. Accordingly, members can still transact certain floating rate advances referenced to LIBOR so long as they mature by December 31, 2021. For further information, see **LIBOR Transition** starting on page 51.

*Affordable Housing Program (AHP) and Downpayment Plus® (DPP®) Program*

We expect to award $23.5 million in competitive AHP funding this year. Since 1989, the Bank has awarded more than $484 million in competitive AHP subsidies to support more than 84,000 housing units. Half way through this year, $10.8 million in DPP funds have been reserved on behalf of 1,900 homebuyers.

*Second Quarter 2020 Dividends*

Based on our preliminary financial results for the second quarter of 2020, the Board of Directors declared a dividend of 5.00% (annualized) for Class B1 activity stock, in line with the Class B1 guidance provided in April 2020. Additionally, the Board also declared a dividend of 2.25% (annualized) for Class B2 membership stock. The dividend for the second quarter of 2020 will be paid by crediting members' DID accounts on August 13, 2020. As we announced on June 29, 2020, we expect to maintain a 5.00% (annualized) dividend for Class B1 activity stock for the third and fourth quarters of 2020, based on current projections and assumptions regarding our financial condition. We are providing this information to assist members in planning their activity with us.

The Bank pays a higher dividend per share on members' activity stock to recognize members that support the entire cooperative through the use of our products. The higher dividend received on Class B1 activity stock has the effect of lowering members' borrowing costs, and this benefit has increased on a relative basis as the Federal Reserve has cut short-term interest rates twice this year.

As we have clearly demonstrated during this pandemic, we are committed to meeting our members' liquidity and funding needs. Any future dividend payments remain subject to determination and declaration by our Board of Directors and may be impacted by further changes in financial or economic conditions, regulatory and statutory limitations, and any other relevant factors.

*Operating as a Virtual Bank During the COVID-19 Pandemic*

Serving Bank members and ensuring the health and well-being of Bank employees remain our highest priorities. To date, our business resiliency plans have helped us remain fully operational as a virtual workplace and we expect to continue to operate effectively in the foreseeable future.

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 uncertain and cannot be predicted.  For a discussion of the risks and potential risks facing the Bank as a result of the COVID-19 pandemic, see **Risk Factors** in our Q1 2020 Form 10-Q on page 63.

## Critical Accounting Policies and Estimates

For a detailed description of our Critical Accounting Policies and Estimates see page 38 in our 2019 Form 10-K.

See **Note 2 - Summary of Significant Accounting Policies** and **Note 3 - Recently Issued but Not Yet Adopted Accounting Standards** to the financial statements in this Form 10-Q for the impact of changes to our critical accounting policies subsequent to December 31, 2019.

There have been no significant changes to our critical accounting estimates subsequent to December 31, 2019.

## 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 and credit OTTI reversals;
- Beginning January 1, 2019 on a prospective basis, 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. Prior to January 1, 2019, hedge ineffectiveness was classified in noninterest income on derivatives and hedging activities;
- 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.

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

**Increase or decrease in interest income and expense due to volume or rate variances**

| | June 30, 2020 | | | June 30, 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 three months ended** | | | | | | | | | |
| Investment debt securities | **$ 24,374** | **$ 124** | **2.03 %** | $ 20,280 | $ 184 | 3.63 % | **$ 21** | **$ (81)** | **$ (60)** |
| Advances | **54,703** | **145** | **1.06 %** | 55,550 | 362 | 2.61 % | **(2)** | **(215)** | **(217)** |
| MPF Loans held in portfolio | **10,679** | **76** | **2.85 %** | 7,860 | 78 | 3.97 % | **20** | **(22)** | **(2)** |
| Federal funds sold and securities purchased under agreements to resell | **9,048** | **1** | **0.04 %** | 11,658 | 70 | 2.40 % | **—** | **(69)** | **(69)** |
| Other interest bearing assets | **2,684** | **1** | **0.15 %** | 1,405 | 9 | 2.56 % | **—** | **(8)** | **(8)** |
| **Interest bearing assets** | **101,488** | **347** | **1.37 %** | 96,753 | 703 | 2.91 % | **16** | **(372)** | **(356)** |
| Noninterest bearing assets | **2,375** | | | 1,738 | | | | | |
| **Total assets** | **103,863** | | | 98,491 | | | | | |
| | | | | | | | | | |
| Consolidated obligation discount notes | **45,956** | **82** | **0.71 %** | 44,892 | 280 | 2.49 % | **2** | **(200)** | **(198)** |
| Consolidated obligation bonds | **49,001** | **123** | **1.00 %** | 45,933 | 300 | 2.61 % | **8** | **(185)** | **(177)** |
| Other interest bearing liabilities | **1,504** | **4** | **1.06 %** | 899 | 7 | 3.11 % | **2** | **(5)** | **(3)** |
| **Interest bearing liabilities** | **96,461** | **209** | **0.87 %** | 91,724 | 587 | 2.56 % | **10** | **(388)** | **(378)** |
| Noninterest bearing liabilities | **1,256** | | | 1,059 | | | | | |
| **Total liabilities** | **97,717** | | | 92,783 | | | | | |
| | | | | | | | | | |
| **Net yield interest earning assets** | **$ 101,488** | **$ 138** | **0.54 %** | $ 96,753 | $ 116 | 0.48 % | **$ 7** | **$ 15** | **$ 22** |
| | | | | | | | | | |
| **For the six months ended** | | | | | | | | | |
| Investment debt securities | **$ 23,691** | **$ 317** | **2.68 %** | $ 19,914 | $ 364 | 3.66 % | **$ 51** | **$ (98)** | **$ (47)** |
| Advances | **55,384** | **383** | **1.38 %** | 55,468 | 720 | 2.60 % | **1** | **(338)** | **(337)** |
| MPF Loans held in portfolio | **10,453** | **163** | **3.12 %** | 7,599 | 154 | 4.05 % | **44** | **(35)** | **9** |
| Federal funds sold and securities purchased under agreements to resell | **10,428** | **39** | **0.75 %** | 11,386 | 137 | 2.41 % | **(3)** | **(95)** | **(98)** |
| Other interest bearing assets | **2,411** | **10** | **0.83 %** | 1,113 | 14 | 2.52 % | **5** | **(9)** | **(4)** |
| **Interest bearing assets** | **102,367** | **912** | **1.78 %** | 95,480 | 1,389 | 2.91 % | **62** | **(539)** | **(477)** |
| Noninterest bearing assets | **2,242** | | | 1,701 | | | | | |
| **Total assets** | **104,609** | | | 97,181 | | | | | |
| | | | | | | | | | |
| Consolidated obligation discount notes | **46,981** | **267** | **1.14 %** | 45,042 | 561 | 2.49 % | **10** | **(304)** | **(294)** |
| Consolidated obligation bonds | **48,940** | **351** | **1.43 %** | 44,454 | 579 | 2.60 % | **32** | **(260)** | **(228)** |
| Other interest bearing liabilities | **1,366** | **10** | **1.46 %** | 892 | 15 | 3.36 % | **3** | **(8)** | **(5)** |
| **Interest bearing liabilities** | **97,287** | **628** | **1.29 %** | 90,388 | 1,155 | 2.56 % | **47** | **(574)** | **(527)** |
| Noninterest bearing liabilities | **1,310** | | | 1,190 | | | | | |
| **Total liabilities** | **98,597** | | | 91,578 | | | | | |
| | | | | | | | | | |
| **Net yield on interest earning assets** | **$ 102,367** | **$ 284** | **0.55 %** | $ 95,480 | $ 234 | 0.49 % | **$ 21** | **$ 29** | **$ 50** |

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

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

- Interest income from investment debt securities decreased due to lower market interest rates in 2020 compared to the same period in 2019. Subject to FHFA regulatory limits as discussed in **Investments** on page 10 in our 2019 Form 10-K, we are currently making investments in MBS.
- Interest income from advances decreased due to lower market interest rates in 2020 compared to the same period in 2019.
- Interest income from MPF Loans held in portfolio declined for the three months ended June 30, as the overall yield of the MPF portfolio declined whereas interest income increased for the six months ended June 30 due to higher volume despite the decline in overall yield. This decline in yield is due to the lower mortgage rate environment impacting the yield earned on new loan originations, along with the recognition of premium amortization as loans prepaid during the period. However, the decline in overall yield of the MPF portfolio was offset in part for the three months ended June 30, 2020, and more than offset for the six months ended June 30, 2020 by higher volumes, as new-acquisition volume continued to outpace paydown and maturity activity due to loan origination activity driven by refinancing as mortgage rates declined overall. A higher number of our PFIs delivering into the MPF Traditional program also contributed to the higher volume in MPF Loans held in portfolio.
- Interest income from overnight Federal Funds sold and securities purchased under agreements to resell 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.
- Net interest income increased primarily due to the receipt of approximately $13 million and $15 million of advance prepayment fees for the three months and six months ended June 30 respectively, compared to $3 million for the same periods a year ago, along with calling certain higher rate callable debt relative to the same periods a year ago.
- For details of the effect our fair value and cash flow hedge activities had on our net interest income see **Total Net Effect Gain (Loss) of Hedging Activities** table on page 46.

Although the Bank maintained ready access to funding throughout the first half of 2020, we experienced some disruptions in the long-term debt markets, as discussed below in **Funding** on page 51. The impact of the COVID-19 pandemic on our overall funding costs may cause compression in net interest margin in the future as returns on our liquidity asset portfolio decline over the same time. 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 uncertain and cannot be predicted. For a discussion of risks relating to our financial condition and results of operation as a result of the COVID-19 pandemic, including risks relating to our net interest margin and advance levels, see **Risk Factors** in our Q1 2020 Form 10-Q on page 63.

**Noninterest Income**

| | Three months ended June 30, | | Six months ended June 30, | |
|---|---|---|---|---|
| | **2020** | 2019 | **2020** | 2019 |
| **Noninterest income -** | | | | |
| Trading securities | **(25)** | 15 | **$ 62** | $ 23 |
| Derivatives and hedging activities | **$ (21)** | $ (24) | **(159)** | (26) |
| Instruments held under fair value option | **36** | 17 | **76** | 19 |
| MPF fees, **8** , 6 , **16** and 13 from other FHLBs | **15** | 9 | **25** | 17 |
| Other, net | **4** | 4 | **7** | 6 |
| **Noninterest income** | **$ 9** | $ 21 | **$ 11** | $ 39 |

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

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

Losses in our trading securities were the driver of our decrease in noninterest income for the three months ended June 30, 2020 offset in part by unrealized gains on our instruments held under fair value option. Losses in our derivatives and hedging activities were the driver of our decrease in noninterest income for the six months ended June 30, 2020 offset in by part unrealized gains and sales in our trading securities and unrealized gains on our instruments held under fair value option. The corresponding gains and losses were primarily attributable to the decline in market interest rates in the first half of 2020.

**(U.S. Dollars in tables in millions except per share amounts unless otherwise indicated)**

The following table details the effect of these transactions on our statements of income.

**Total Net Effect Gain (Loss) of Hedging Activities**

| | Advances | Investments | MPF Loans | Discount Notes | Bonds | Other | Total |
|---|---|---|---|---|---|---|---|
| **Three months ended June 30, 2020** | | | | | | | |
| Recorded in net interest income | **$ (25)** | **$ (51)** | **$ —** | **$ (5)** | **$ 33** | **$ 1** | **$ (47)** |
| Recorded in derivatives & hedging activities | **(9)** | **(2)** | **(11)** | **—** | **1** | **—** | **(21)** |
| Recorded in trading securities | **—** | **(29)** | **—** | **—** | **—** | **—** | **(29)** |
| Recorded on instruments held under fair value option | **18** | **—** | **—** | **14** | **4** | **—** | **36** |
| **Total net effect gain (loss) of hedging activities** | **$ (16)** | **$ (82)** | **$ (11)** | **$ 9** | **$ 38** | **$ 1** | **$ (61)** |
| Three months ended June 30, 2019 | | | | | | | |
| Recorded in net interest income | $ 10 | $ (10) | $ (1) | $ (7) | $ (19) | $ — | $ (27) |
| Recorded in derivatives & hedging activities | (30) | (12) | 10 | — | 5 | 3 | (24) |
| Recorded in trading securities | — | 15 | — | — | — | — | 15 |
| Recorded on instruments held under fair value option | 24 | — | — | — | (7) | — | 17 |
| **Total net effect gain (loss) of hedging activities** | $ 4 | $ (7) | $ 9 | $ (7) | $ (21) | $ 3 | $ (19) |
| **Six months ended June 30, 2020** | | | | | | | |
| Recorded in net interest income | **$ (40)** | **$ (39)** | **$ —** | **$ (9)** | **$ 42** | **$ —** | **$ (46)** |
| Recorded in derivatives & hedging activities | **(100)** | **(94)** | **2** | **20** | **9** | **4** | **(159)** |
| Recorded in trading securities | **—** | **41** | **—** | **—** | **—** | **—** | **41** |
| Recorded on instruments held under fair value option | **78** | **—** | **2** | **—** | **(4)** | **—** | **76** |
| **Total net effect gain (loss) of hedging activities** | **$ (62)** | **$ (92)** | **$ 4** | **$ 11** | **$ 47** | **$ 4** | **$ (88)** |
| Six months ended June 30, 2019 | | | | | | | |
| Recorded in net interest income | $ 24 | $ (18) | $ (1) | $ (18) | $ (44) | $ — | $ (57) |
| Recorded in derivatives & hedging activities | (41) | (17) | 14 | 3 | 11 | 4 | (26) |
| Recorded in trading securities | — | 23 | — | — | — | — | 23 |
| Recorded on instruments held under fair value option | 34 | — | — | — | (15) | — | 19 |
| **Total net effect gain (loss) of hedging activities** | $ 17 | $ (12) | $ 13 | $ (15) | $ (48) | $ 4 | $ (41) |

*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 income from other third party off balance sheet MPF Loan products and other related transaction fees. These fees are designed to offset a portion of the expenses we incur to administer the program for them. We had an increase in fee income for 2020 compared to 2019.

*Other, net*

Other, net consists primarily of fee income earned on member standby letter of credit products, as noted in **Selected Financial Data** on page 38.

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

**Noninterest Expense**

| | Three months ended June 30, | | Six months ended June 30, | |
|---|---|---|---|---|
| | **2020** | 2019 | **2020** | 2019 |
| Compensation and benefits | **$ 35** | $ 27 | **$ 71** | $ 55 |
| Nonpayroll operating expenses | **26** | 23 | **46** | 43 |
| COVID-19 Relief Program | **19** | — | **19** | — |
| Other | **5** | 2 | **6** | 4 |
| **Noninterest expense** | **$ 85** | $ 52 | **$ 142** | $ 102 |

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

As noted in **Noninterest Income** on page 45, 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 offset a portion of 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.

| | Three months ended June 30, | | Six months ended June 30, | |
|---|---|---|---|---|
| | **2020** | 2019 | **2020** | 2019 |
| MPF fees earned | **$ 15** | $ 9 | **$ 25** | $ 17 |
| Expenses related to MPF fees earned | **11** | (9) | **20** | (17) |

Compensation and benefits increased due to increased employee headcount and increases in salaries, incentive compensation expenses and pension-related expenses. We had 488 employees as of June 30, 2020, compared to 477 as of June 30, 2019.

Operating expenses were comparable to prior periods as we continue our planned investment in information technology, specifically applications, infrastructure and resiliency.

Other consists primarily 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. In addition, Other includes MPF related nonoperating expenses/gains on the sale of real estate owned.

In response to the COVID-19 pandemic, on April 20, 2020 the Bank announced the COVID-19 Relief Program to support communities in Illinois and Wisconsin. Under the program, each Bank member and non-member housing associate was eligible to draw up to $4 million in an interest-free advance (up to a total of $2.76 billion in interest-free advances under the program). Additionally, under the program, the Bank offered all members and non-member housing associates the opportunity to request up to $20,000 in grants to benefit small businesses and non-profit organizations of their choosing. We committed to invest $30 million in COVID relief funding, $19 million of which was provided to members in the second quarter of 2020. Of the $19 million provided to members, $13 million in grants were distributed by 654 of our members to a variety of beneficiaries, including but not limited to food pantries, small businesses (including many restaurants), health clinics, fire departments, community service organizations, family and social service organizations, as well as day care and education providers, and we made $1.9 billion in subsidized, 0% advances to support 506 members, representing $6 million of interest rate subsidy. We anticipate deploying the remaining relief funds to members via a subsequent grant program to be announced in the third quarter of 2020, which would result in additional non-interest expense in the third quarter of $11 million.

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 uncertain and cannot be predicted. For a discussion of risks relating to our financial condition and results of operation as a result of the COVID-19 pandemic, see **Risk Factors** on page 63 of our Q1 2020 Form 10-Q.

(U.S. 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** in our 2019 Form 10-K for further details.

**Other Comprehensive Income (Loss)**

| | Three months ended June 30, | | Six months ended June 30, | | Balance remaining in AOCI as of |
|---|---|---|---|---|---|
| | **2020** | 2019 | **2020** | 2019 | **June 30, 2020** |
| Net unrealized gain (loss) available-for-sale debt securities | **$ 347** | $ (17) | **$ (284)** | $ (19) | **$ (180)** |
| Noncredit OTTI held-to-maturity debt securities | **5** | 7 | **9** | 13 | **(76)** |
| Net unrealized gain (loss) cash flow hedges | **(4)** | (11) | **(48)** | (13) | **(86)** |
| Postretirement plans | **—** | 1 | **(11)** | 5 | **(21)** |
| **Other comprehensive income (loss)** | **$ 348** | $ (20) | **$ (334)** | $ (14) | **$ (363)** |

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

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

The net unrealized gain on our available-for-sale (AFS) portfolio for the three months ended June 30, 2020 is primarily due to spreads to swaps reversing the majority of the widening initially experienced in the first quarter of 2020 resulting from the effects of the COVID-19 pandemic on the financial markets. The net unrealized loss on our AFS portfolio for the six months ended June 30, 2020 is primarily attributable to the decrease in market rates in the first half of 2020 and the resulting effect from differences in duration between our hedged items and hedging instruments. As these securities approach maturity, we expect these net unrealized losses to reverse over the remaining life of these securities (since we expect to receive par value at maturity).

*Noncredit OTTI on held-to-maturity debt securities*

We recorded unrealized noncredit impairments on held-to-maturity debt securities during the last financial crisis of 2008. The market value of these securities have improved from their impaired values and because we intend to hold these securities to maturity, we are recording accretion to the carrying amount of the securities, reversing the remaining loss balance in AOCI over the remaining life of these securities.

*Net unrealized gain (loss) on cash flow hedges*

The net unrealized loss on cash flow hedges for 2020 resulted from a decrease in market interest rates for 2020.

*Postretirement plans*

The loss recorded in 2020 was primarily due to an actuarial adjustment resulting from a decline 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 June 30, 2020 due to our credit standing. For further details on the activity in our Other Comprehensive Income (Loss) see **Note 12 - Accumulated Other Comprehensive Income (Loss)** to the financial statements.

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

**Statement of Condition**

| | June 30, 2020 | December 31, 2019 |
|---|---|---|
| Cash and due from banks, interest bearing deposits, Federal Funds sold, and securities purchased under agreement to resell | **$ 9,774** | $ 15,815 |
| Investment debt securities | **26,279** | 23,096 |
| Advances | **49,250** | 50,508 |
| MPF Loans held in portfolio, net of allowance for credit losses | **10,947** | 10,000 |
| Other, net of allowance for credit losses | **481** | 408 |
| **Assets** | **96,731** | 99,827 |
| Consolidated obligation discount notes | **37,440** | 41,675 |
| Consolidated obligation bonds | **51,760** | 50,474 |
| Other | **2,184** | 2,224 |
| **Liabilities** | **91,384** | 94,373 |
| Capital stock | **1,837** | 1,713 |
| Retained earnings | **3,873** | 3,770 |
| Accumulated other comprehensive income (loss) | **(363)** | (29) |
| **Capital** | **5,347** | 5,454 |
| **Total liabilities and capital** | **$ 96,731** | $ 99,827 |

The following is an analysis of the above table and comparisons apply to June 30, 2020 compared to December 31, 2019.

**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 second quarter of 2020, 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 2020. This increase was offset by declines in our MBS/ABS securities that matured or paid down.

**Advances**

Advance balances decreased at the end of second quarter 2020 compared to year end 2019 primarily due to many of our depository members experiencing 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. 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 further 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, see **Risk Factors** on page 19 of the Bank's 2019 Form 10-K.

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

MPF Loans held in portfolio increased as new-acquisition volume continued to outpace paydown and maturity activity due to loan origination activity driven by refinancing as mortgage rates declined overall. A higher number of our PFIs delivering into the MPF Traditional program also contributed to the increase in MPF Loans held in portfolio. 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.

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

## Liquidity, Funding, & Capital Resources

### Liquidity

For the period ending June 30, 2020, we maintained a liquidity position in accordance with FHFA regulations and guidance, and policies established by our Board of Directors. Based upon our excess liquidity position described below, we anticipate remaining in compliance with our current liquidity requirements. See **Liquidity, Funding, & Capital Resources** on page 47 in our 2019 Form 10-K for a detailed description of our current liquidity requirements. We use different measures of liquidity as follows:

Overnight Liquidity – Our policy requires us to maintain overnight liquid assets at least equal to 3.5% or $3.4 billion of total assets. As of June 30, 2020, our overnight liquidity was $13.6 billion or 14% of total assets, giving us an excess overnight liquidity of $10.2 billion.

Deposit Coverage – To support our member deposits, FHFA regulations require us to have an amount equal to the current deposits 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 June 30, 2020, we had excess liquidity of $48.3 billion to support member deposits.

Liquidity Reserves – As discussed on page 48 in the **Liquidity, Funding, & Capital Resources** section of our 2019 Form 10-K, FHFA guidance on liquidity (the "Liquidity AB") requires that we hold positive cash flow assuming no access to the capital markets for a period of between ten to thirty calendar days, and assuming the renewal of all maturing advances. The Liquidity AB also requires the Bank to maintain liquidity reserves between one and 20 percent of our outstanding letter of credit commitments.

The Liquidity AB requires 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 page 18 in the **Risk Factors** section of our 2019 Form 10-K.

In addition, we fund certain overnight or shorter-term 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.

| | | Investment Debt Securities | |
|---|---|---|---|
| As of June 30, 2020 | MPF Loans Held in Portfolio | Available-for Sale | Held-to-Maturity |
| **Year of Expected Principal Cash Flows** | | | |
| One year or less | $ 4,186 | $ 746 | $ 1,102 |
| After one year through five years | 4,056 | 2,504 | 487 |
| After five years through ten years | 1,500 | 8,764 | 266 |
| After ten years | 1,010 | 4,725 | 49 |
| **Total** | $ 10,752 | $ 16,739 | $ 1,904 |

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 page 23 of the **Risk Factors** section in our 2019 Form 10-K.

**Funding**

*Conditions in Financial Markets*

The COVID-19 pandemic continued to affect the markets and the economy during the second quarter. At its meeting in April, the Federal Open Markets Committee (FOMC) kept the Federal Funds rate at a target range between zero and 0.25 percent. The Federal Reserve committed to using its full range of tools to support the economy and indicated that quantitative easing (QE) would continue. At its June 10, 2020 meeting, the FOMC maintained the Federal Funds target range and said it would maintain its QE, repurchase and overnight lending programs to keep credit available. U.S. Gross Domestic Product (GDP) for the quarter decreased by 5.0%. Yields on U.S. Treasuries were mixed during the second quarter relative to the prevailing yields at the end of the first quarter, with higher yields in the short-end of the curve, and lower yields for maturities of 2 years and longer. In the equity markets, the S&P 500 Index rose 20% and the Dow Jones Industrial Average rose 17% during the second quarter of 2020.

At the end of the first quarter and into the beginning of the second quarter of 2020, our funding was reliant on borrowings with shorter-term maturities. Longer term funding was increasingly expensive due to investors in our debt, and in fixed income in general, preferring the relative safety of the short-end of the curve. As the second quarter progressed, funding levels for longer maturity debt improved and moved closer to historical norms. By the end of the second quarter, access to funding across the entire curve at more typical pricing levels had been re-established.

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 63 in our Q1 2020 Form 10-Q.

We maintained ready access to funding throughout the six months ended June 30, 2020.

*LIBOR Transition*

In July 2017, the United Kingdom's (U.K.) Financial Conduct Authority (FCA), a regulator of financial services firms and financial markets in the U.K., announced its intention to cease sustaining the LIBOR indices after 2021. In response, the Federal Reserve Board (FRB) and the Federal Reserve Bank of New York convened the Alternative Reference Rates Committee (ARRC) to identify a set of alternative reference interest rates for possible use as market benchmarks. The 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 Federal Reserve Bank of New York began publishing SOFR rates in April 2018 and the FHLB System issued its first SOFR-linked debt in the market on November 13, 2018. Many of our assets and liabilities are indexed to LIBOR, some with maturities or termination dates extending past December 31, 2021.

On September 27, 2019, the FHFA issued a Supervisory Letter (the "Supervisory Letter") that the FHFA stated is designed to ensure the FHLBs will be able to identify and prudently manage the risks associated with the termination of LIBOR in a safe and sound manner. Among other things, the Supervisory Letter provides that the FHLBs should cease entering into certain transactions referencing LIBOR that mature after December 31, 2021. Accordingly, we previously ceased entering into option embedded advance products that reference LIBOR and have ceased purchasing investments that reference LIBOR and mature after December 31, 2021. Effective July 1, 2020, we suspended transactions in certain structured advances and advances with terms directly linked to LIBOR that mature after December 31, 2021. Also as of July 1, 2020, we no longer enter into consolidated obligation bonds and derivatives with swaps, caps, or floors indexed to LIBOR that terminate after December 31, 2021. For further discussion of the risks related to the replacement of LIBOR, see page 24 of the **Risk Factors** section in our 2019 Form 10-K.

We are currently evaluating and planning for the eventual replacement of the LIBOR benchmark interest rate, including the possibility of SOFR as the primary replacement rate for investments and advances. We have developed an initial 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 have begun to develop an inventory of financial instruments impacted and begun to identify contracts that may 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 and the OF has added or adjusted fallback language applicable to FHLB consolidated obligations. We continue to monitor the market-wide efforts to address fallback language related to derivatives and investment securities as well as fallback language for new activities and issuances of financial instruments. We are in the process of assessing our operational readiness, including updating our processes and information technology systems to support the transition from LIBOR to an alternative reference rate.

(U.S. 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 six months ended June 30, 2020, we have participated in the issuance of $20.6 billion in SOFR-linked consolidated bonds. We are using Federal Funds Overnight Index Swap (Fed Funds OIS) 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 six months ended June 30, 2020, have issued $184 million in SOFR-linked advances. 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 presents our variable rate financial instruments by interest-rate index at June 30, 2020 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.

| As of June 30, 2020 | Advances | Investments | Consolidated Obligations |
|---|---|---|---|
| **Principal amount of variable rate instruments outstanding** [a] | | | |
| LIBOR | $ 2,382 | $ 3,762 | $ (3,525) |
| SOFR | 192 | — | (27,576) |
| Treasury | — | 155 | — |
| Other | 17,927 [b] | 274 | — |
| **Total** | **$ 20,501** | **$ 4,191** | **$ (31,101)** |
| | | | |
| **LIBOR indexed instruments principal amount outstanding by contractual maturity/termination date** | | | |
| Before January 1, 2022 | $ 926 | $ 32 | $ (3,275) |
| January 1, 2022, and thereafter | 1,456 | 3,730 | (250) |
| **Total** | **$ 2,382** | **$ 3,762** | **$ (3,525)** |
| | | | |
| **Principal amount of SOFR-linked instruments issued YTD through June 30, 2020** | **$ 184** | **$ —** | **$ (20,590)** |

[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.

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

| | Derivative Notional Amount Outstanding | |
|---|---|---|
| **As of June 30, 2020** | **Pay Leg** | **Receive Leg** |
| | | |
| **Interest rate swaps outstanding** | | |
| Fixed rate | $ 37,443 | $ 25,407 |
| LIBOR | 9,997 | 24,181 |
| SOFR | 158 | 20 |
| OIS | 15,252 | 12,842 |
| Other | — | 400 |
| **Total interest rate swaps** | $ 62,850 | $ 62,850 |
| | | |
| **LIBOR indexed interest rate swaps by contractual maturity/termination date** | | |
| Maturity/termination before January 1, 2022 | $ 3,328 | $ 2,810 |
| Maturity/termination January 1, 2022, and thereafter | 3,230 | 10,314 |
| **Total cleared** | 6,558 | 13,124 |
| Maturity/termination before January 1, 2022 | 1,917 | 1,569 |
| Maturity/termination January 1, 2022, and thereafter | 1,522 | 9,488 |
| **Total uncleared** | 3,439 | 11,057 |
| **Total LIBOR indexed interest rate swaps** | $ 9,997 | $ 24,181 |

**Condensed Statements of Cash Flows**

*Cash flows from operating activities*

| Six months ended June 30, | **2020** | 2019 | Change |
|---|---|---|---|
| **Net cash provided by (used in) operating activities** | $ (2,013) | $ (291) | $ (1,722) |

The majority of our operating cash outflows in 2020 were related to cash sent daily to clearinghouses to settle mark-to-market derivative positions with them, which were significantly higher in 2020 due to the COVID-19 impact on market volatility, which occurred primarily in the first quarter.

*Cash flows from investing activities with significant activity*

| Six months ended June 30, | **2020** | 2019 | Change |
|---|---|---|---|
| Liquid assets (Federal Funds sold, securities purchased under agreements to resell, and interest bearing deposits) | $ 6,060 | $ (2,841) | $ 8,901 |
| Investment debt securities | (2,689) | (665) | (2,024) |
| Advances | 2,087 | 1,826 | 261 |
| MPF Loans held in portfolio | (979) | (1,166) | 187 |
| Other | (9) | 7 | (16) |
| **Net cash provided by (used in) investing activities** | $ 4,470 | $ (2,839) | $ 7,309 |

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

- In 2020, our liquid assets were reduced as we funded increased investment securities and reduced our consolidated obligation discount notes outstanding. In 2019, we invested in liquid assets to increase our liquidity position to comply with new FHFA liquidity guidance. We continue to maintain compliance with this guidance.
- We increased our investment debt security purchases in 2020, as we achieved key liquidity, MBS, and mission asset ratios.

**(U.S. Dollars in tables in millions except per share amounts unless otherwise indicated)**

- Our advances outstanding decreased in 2020 due to decreased member demand for funding. We experienced a similar decrease in advances during the same period in 2019.
- Net investment in MPF Loans held in portfolio in 2020 was comparable to 2019 mainly as mortgage rates continued to decline resulting in increased loan origination volume driven by refinancings.

*Cash flows from financing activities with significant activity*

| Six months ended June 30, | **2020** | 2019 | Change |
|---|---|---|---|
| Consolidated obligation discount notes | **$ (4,183)** | $ 1,683 | $ (5,866) |
| Consolidated obligation bonds | **1,062** | 1,390 | (328) |
| Other | **683** | 56 | 627 |
| **Net cash provided by (used in) financing activities** | **$ (2,438)** | $ 3,129 | $ (5,567) |

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.

- We reduced our shorter termed discount notes matching the decline in liquid assets as discussed in investing activities above and issued consolidated obligation bonds consistent with our investment in MPF Loans.
- Other financing activities increased primarily due to an increase in member deposits.

**Capital Resources**

*Capital Rules*

We implemented an Amended and Restated Capital Plan of the Federal Home Loan Bank of Chicago, effective July 1, 2020 (Amended Capital Plan). Although the overall design of our capital structure and total amount of capital stock held by members remains unchanged under the Amended Capital Plan, certain changes discussed below are designed to reward members who use the Bank's products, provide tighter ranges on capital stock requirements and streamline certain aspects of capital stock administration for improved efficiency and member experience. We do not expect the Amended Capital Plan to impact our ability to meet our capital requirements.

Under the Amended Capital Plan our stock continues to consist 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 per share and redeemable on five years' written notice, subject to certain conditions. 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. Class B1 activity stock is available to support a member's activity stock requirement. Class B2 membership stock is available to support a member's membership stock requirement. Under our prior capital plan, to the extent that a member had advances, we converted capital stock that would otherwise be classified as Class B2 membership stock to Class B1 activity stock, except for a “threshold” of $10,000 that remained Class B2 membership stock. Our Amended Capital Plan removes the threshold so that all capital stock that supports a member's advance activity is now classified as Class B1 activity stock. As with our prior capital plan, any dividend declared on Class Bl activity stock must be greater than or equal to the dividend on Class B2 membership stock for the same period. The higher dividend paid on Class B1 activity stock since late 2013 acknowledges that members, through their utilization of Bank advances, provide support to the entire cooperative.

As with our prior capital plan, each member's activity stock requirement remains at 4.5% for advances other than those borrowed under the Reduced Capitalization Advance Program (RCAP) as further discussed below. The Amended Capital Plan continues to provide that the Board of Directors may periodically adjust members' activity stock requirement for advances, but the range of adjustment has now been reduced to between 2% and 5% of a member's outstanding advances.

The activity stock requirement for MPF Loans acquired for our portfolio remains set at 0% under our Amended Capital Plan, and the range within which our Board may adjust this requirement has been reduced to between 0% and 5%. As a result of regulatory guidance, our Amended Capital plan now allows for an activity stock requirement within a range of 0% to 2% for letters of credit, which our Board has initially set at 0%. At such time as the Board decides to introduce, or at such time as our regulator imposes, an activity stock requirement for MPF Loans or standby letters of credit, we intend to notify members sufficiently in advance of the change and apply that change only to future acquisitions or transactions.

As with our prior capital plan, each member's membership stock requirement remains the greater of either $10,000 or 0.40% of a member's mortgage assets. The Amended Capital Plan continues to provide that the Board may periodically adjust members' membership stock requirement, but the range of adjustment has been reduced to between 0.20% to 1% of a member's mortgage assets. A member's investment in membership stock remains capped at $5 million, which is now subject to adjustment by the Board within a simplified and reduced range of between $1 million and $25 million.

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

Membership stock requirements will continue to be recalculated annually, whereas the activity stock requirement and any automatic conversion between Class B2 membership stock and Class B1 activity stock related to advance activity continue to 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 as discussed in **Note 11 - Capital and Mandatorily Redeemable Capital Stock (MRCS)** to the financial statements in this Form 10-Q. 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.

For details on our capital stock requirements under our Capital Plan during 2019 and the first six months of 2020, see **Capital Resources** on page 54 of our 2019 Form 10-K. 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.

For details on our minimum regulatory capital requirements see **Note 11 - Capital and Mandatorily Redeemable Capital Stock (MRCS)** to the financial statements in this Form 10-Q**,** and **Minimum Capital Requirements** on page F-39 of our 2019 Form 10-K.

*Reduced Capitalization Advance Program (RCAP)*

RCAP 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 June 30, 2020, and December 31, 2019, RCAP advances outstanding total $23.0 billion to 514 members and $24.2 billion to 141 members, respectively. The advances issued through our COVID-19 Relief Program were all RCAP advances, which resulted in the increased number of members with RCAP advances outstanding at June 30, 2020. 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.

**Repurchase of Excess Capital Stock**

Currently, we are not automatically repurchasing excess Class B2 membership stock, but members may request repurchase of excess capital stock on any business day. All repurchases of excess capital stock requested by members will continue until otherwise announced, but remain subject to our regulatory requirements, certain financial and capital thresholds, and prudent business practices. For details on the financial and capital thresholds relating to repurchases, see **Repurchase of Excess Capital Stock** on page 57 of our 2019 Form 10-K.

*Capital Amounts*

The following table 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 in other liabilities in our statements of condition.

| | June 30, 2020 | December 31, 2019 |
|---|---|---|
| Capital Stock | **$ 1,837** | $ 1,713 |
| MRCS | **289** | 324 |
| **Regulatory capital stock** | **2,126** | 2,037 |
| Retained earnings | **3,873** | 3,770 |
| **Regulatory capital** | **$ 5,999** | $ 5,807 |
| | | |
| Capital stock | **$ 1,837** | $ 1,713 |
| Retained earnings | **3,873** | 3,770 |
| Accumulated other comprehensive income (loss) | **(363)** | (29) |
| **GAAP capital** | **$ 5,347** | $ 5,454 |

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 12 - Accumulated Other Comprehensive Income (Loss)** to the financial statements.

Although we had no credit losses year to date in 2020 on our remaining PLMBS portfolio, credit deterioration may negatively impact that portfolio. We cannot predict if or when credit losses will occur, or the impact these losses may have on our retained earnings and capital position. For a discussion of the credit risks facing the Bank as a result of the COVID-19 pandemic, including as a result of a decline in the fair value of Bank investments, see **Risk Factors** on page 63 of our Q1 2020 Form 10-Q.

We may not pay dividends if we fail to satisfy our minimum capital and liquidity requirements under the FHLB Act and FHFA regulations. On July 30, 2020, our Board of Directors declared a 5.00% dividend (annualized) for Class B1 activity stock and a 2.25% dividend (annualized) for Class B2 membership stock based on our preliminary financial results for the second quarter of 2020. This dividend totaled $25 million (recorded as $21 million dividends on capital stock and $4 million interest expense on mandatorily redeemable capital stock) and is scheduled for payment on August 13, 2020.

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. For further information see **Retained Earnings & Dividends** on page 58 in our 2019 Form 10-K.

We continue to allocate 20% of our net income each quarter to a restricted retained earnings account in accordance with the Joint Capital Enhancement Agreement that we entered into with the other FHLBs, as further discussed in **Joint Capital Enhancement Agreement** on page F-41 in our 2019 Form 10-K.

Beginning in February 2020, the FHFA will consider the proportion of capital stock to assets, measured on a daily average basis at month end, when assessing each FHLB's capital management practices. See **Recent Legislative and Regulatory Developments** on page 13 in our 2019 Form 10-K.

**Financing Corporation (FICO) Dissolution**

In connection with the dissolution of FICO in July 2020, excess funds were available for distribution to its stockholders, the FHLBs, and were distributed in June 2020. 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. Our share of the distribution was $19 million, which we credited to unrestricted retained earnings in our **Statements of Capital** on page 6 and as a Financing Activity in our **Condensed Statements of Cash Flows** on page 8. Also see **Note 11 – Capital and Mandatorily Redeemable Capital Stock (MRCS)** for further details.

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

**Credit Risk Management**

In light of the economic and financial disruptions related COVID-19 pandemic, we are closely monitoring our credit risk exposure. However, 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 uncertain and cannot be predicted. 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 63 of our Q1 2020 Form 10-Q.

*Managing Our Credit Risk Exposure Related to Member Credit Products*

Our credit risk rating system focuses primarily on our member's overall financial health and takes into account the member's asset quality, earnings, and capital position. For further information please see **Credit Risk** starting on page 61 in our 2019 Form 10-K.

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, $48.0 billion were advances (par value) and $24.8 billion were letters of credit at June 30, 2020, compared to $50.1 billion and $23.9 billion at December 31, 2019.

| | **June 30, 2020** | | | December 31, 2019 | | |
|---|---|---|---|---|---|---|
| Rating | **Borrowing Members** | **Credit Outstanding** | **Collateral Loan Value** | Borrowing Members | Credit Outstanding | Collateral Loan Value |
| 1-3 | **588** | **$ 71,293** | **$ 142,854** | 492 | $ 73,421 | $ 134,965 |
| 4 | **7** | **697** | **802** | 2 | 871 | 881 |
| 5 | **8** | **34** | **67** | 9 | 60 | 88 |
| Total | **603** | **$ 72,024** | **$ 143,723** | 503 | $ 74,352 | $ 135,934 |

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 are accepting as eligible collateral loans temporarily granted forbearance 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.

Although the total value of securities collateral has increased since December 31, 2019 as a result of more members pledging securities as collateral, several members have experienced a reduction in the value of their securities collateral due to the ongoing impact of the COVID-19 pandemic on the economy and markets. To the extent this trend continues, the value of securities collateral pledged to secure member credit may continue to be negatively impacted.

*MPF Loans and Related Exposures*

For details on our allowance for credit losses on MPF Loans, please see **Note 8 - Allowance for Credit Losses** to the financial statements.

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. For further details see **Loss Structure for Credit Risk Sharing Products** on page 9 of our 2019 Form 10-K, and **Credit Risk Exposure** and **Setting Credit Enhancement Levels** on page 64 of our 2019 Form 10-K.

Under our MPF Program for non-government insured or guaranteed loans held in our portfolio, the loan payment forbearance we offer to borrowers impacted by COVID-19 allows a borrower to defer loan payments for 90 days without requiring documentation from the borrower to support the relief requested. Borrowers that continue to be impacted by COVID-19 may request an extension of the loan payment forbearance for up to an additional 270 days. A hardship certification from the borrower supporting the continued hardship due to COVID-19 is required for approval of additional payment forbearance. During forbearance, late fees are not assessed. At the end of forbearance, borrowers are presented with options for bringing their mortgage loan to a current status. For government insured or guaranteed loans held in our portfolio, we follow the insuring or guaranteeing agency's forbearance plan requirements. For MPF Xtra loans that are serviced under the MPF Program, we follow Fannie Mae's forbearance plan requirements. The Cares Act requires that servicers servicing government insured or guaranteed loans and also loans purchased by Fannie Mae offer their borrowers a slightly different payment forbearance plan where the initial forbearance period is up to 180 days with the availability of an additional 180 days for COVID-19 related hardship.

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.

Mortgage Repurchase Risk

For details on our mortgage repurchase risk in connection with our sale of MPF Loans to third party investors and MPF Loans securitized into MBS when a loan eligibility requirement or other warranty is breached, see **Mortgage Repurchase Risk** on page 65 in our 2019 Form 10-K.

*Investment Debt Securities*

We hold a variety of AA or better rated investment securities, mostly government backed or insured securities, and we believe these investments are currently low risk. There were no material changes in the credit ratings of these securities since December 31, 2019. For further details see **Investment Debt Securities by Rating** on page 68 in our 2019 Form 10-K. Except for PLMBS, we have never taken an impairment charge on our investment securities.

Our PLMBS are predominantly variable rate securities rated below investment grade (BBB). There were no material changes in overall credit quality since December 31, 2019, nor have we acquired any new PLMBS. We last had a credit loss on PLMBS in 2012. We currently have unrealized gains on these securities as their market values have improved from the impaired values and subsequent to 2012 we began to accrete expected increases in cash flow on these securities back into interest income. For further details see **Note 5 - Investment Debt Securities** to the financial statements.

*Unsecured Short-Term Investments*

See **Unsecured Short-Term Investments** on page 70 in our 2019 Form 10-K for further details on our unsecured short-term investments as well as policies and procedures to limit and monitor our unsecured credit risk exposure.

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

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 June 30, 2020 | AA | A | Total |
|---|---|---|---|
| **Domestic U.S.** | | | |
| Interest-Bearing Deposits | $ — | $ 1,255 | $ 1,255 |
| **U.S. branches and agency offices of foreign commercial banks - Federal Funds sold:** | | | |
| Australia | — | 500 | 500 |
| Canada | — | 2,125 | 2,125 |
| Finland | 376 | — | 376 |
| Netherlands | — | 400 | 400 |
| Norway | 600 | — | 600 |
| Sweden | 970 | — | 970 |
| **Total U.S. branches and agency offices of foreign commercial banks** | 1,946 | 3,025 | 4,971 |
| **Total unsecured credit exposure** | $ 1,946 | $ 4,280 | $ 6,226 |

All $6.226 billion of the unsecured credit exposure shown in the above table were overnight investments.

*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.

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

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.

| | Net Derivative Fair Value Before Collateral | Cash Collateral Pledged | Noncash Collateral Pledged | Net Credit Exposure to Counterparties [a] |
|---|---|---|---|---|
| **As of June 30, 2020** | | | | |
| **Nonmember counterparties -** | | | | |
| **Undercollateralized asset positions -** | | | | |
| Bilateral derivatives - | | | | |
| BBB | **$ 19** | **$ (19)** | **$ —** | **$ —** |
| Cleared derivatives | **11** | **—** | **649** | **660** |
| **Overcollateralized liability positions -** | | | | |
| Bilateral derivatives - | | | | |
| AA | **(34)** | **34** | **—** | **—** |
| A | **(568)** | **570** | **—** | **2** |
| BBB | **(245)** | **247** | **—** | **2** |
| **Nonmember counterparties** | **(817)** | **832** | **649** | **664** |
| Member institutions | **19** | **—** | **—** | **19** |
| **Total** | **$ (798)** | **$ 832** | **$ 649** | **$ 683** |
| As of December 31, 2019 | | | | |
| **Nonmember counterparties -** | | | | |
| **Undercollateralized asset positions -** | | | | |
| **Bilateral derivatives -** | | | | |
| AA | $ 8 | $ (8) | $ — | $ — |
| A | 6 | (6) | — | — |
| **Overcollateralized liability positions -** | | | | |
| **Bilateral derivatives -** | | | | |
| A | (82) | 83 | — | 1 |
| BBB | (60) | 61 | — | 1 |
| **Cleared derivatives** | (8) | — | 432 | 424 |
| **Nonmember counterparties** | (136) | 130 | 432 | 426 |
| Member counterparties | 2 | — | — | 2 |
| **Total** | $ (134) | $ 130 | $ 432 | $ 428 |

[a] Less than $1 million is shown as zero.

**Legislative and Regulatory Developments**

Significant regulatory actions and developments are summarized below.

*Margin and Capital Requirements for Covered Swap Entities*. On July 1, 2020, the Office of the Comptroller of the Currency, the Federal Reserve Board, the Federal Deposit Insurance Corporation, the Farm Credit Administration, and the FHFA (collectively, Prudential Banking Regulators) jointly published a final rule, effective August 31, 2020, amending regulations that established minimum margin and capital requirements for uncleared swaps for covered swap entities under the jurisdiction of the Prudential Banking Regulators (Prudential Margin Rules). In addition to other changes, the final rule: (1) allows swaps entered into by a covered swap entity prior to an applicable compliance date to retain their legacy status and not become subject to the Prudential Margin Rules in the event that the legacy swaps are amended to replace an interbank offered rate (such as LIBOR) or other discontinued rate, or due to other technical amendments such as notional reductions or portfolio compression exercises; (2) introduces a new Phase 6 compliance date for initial margin requirements for covered swap entities and their counterparties with an average daily aggregate notional amount (AANA) of uncleared swaps from $8 billion to $50 billion, and limits Phase 5 to counterparties with an AANA of uncleared swaps from $50 billion to $750 billion; and (3) clarifies that initial margin trading documentation does not need to be executed prior to a counterparty reaching the initial margin threshold.

On the same date, the Prudential Banking Regulators issued an interim final rule, effective September 1, 2020, extending the initial margin compliance date for Phase 5 counterparties to September 1, 2021 and extending the initial margin compliance date for Phase 6 counterparties to September 1, 2022. On July 10, 2020, the Commodity Futures Trading Commission (CFTC) issued a final rule and a proposed rule which collectively, among other things, extend the initial margin compliance date for Phase 5 counterparties to September 1, 2021 and extend the initial margin compliance date for Phase 6 counterparties to September 1, 2022, thereby aligning with the Prudential Banking Regulators.

We do not expect these final rules or the proposed rule, if adopted as proposed, to have a material effect on our financial condition or results of operations.

*FHFA Final Rule on FHLB Housing Goals Amendments*. On June 3, 2020, the FHFA issued a final rule, effective August 24, 2020, amending the FHLB housing goals regulation. Enforcement of the final rule will phase in over three years. The final rule replaces the four existing retrospective housing goals with a single prospective mortgage purchase housing goal target in which 20% of Acquired Member Asset (AMA) mortgages purchased in a year must be comprised of loans to low-income or very low-income families, or to families in low-income areas. The final rule also establishes a separate small member participation housing goal with a target level in which 50% of the members selling AMA loans in a calendar year must be small members. The final rule provides that an FHLB may request FHFA approval of alternative target levels for either or both of the goals. The final rule also establishes that housing goals apply to each FHLB that acquires any AMA mortgages during a year, eliminating the existing $2.5 billion volume threshold that previously triggered the application of housing goals for each FHLB.

While we are still analyzing the impact of the final rule, we do not believe these changes will have a material effect on our financial condition or results of operations.

**Developments Related to COVID-19 Pandemic**

*FHFA Supervisory Letter - Paycheck Protection Program (PPP) Loans as Collateral for FHLB Advances*. On July 1 2020, Congress approved an extension of the Paycheck Protection Program until August 8, 2020. The April 23, 2020 Supervisory Letter from the FHFA allowing FHLBs to accept PPP loans as collateral remains in effect.

*Coronavirus Aid, Relief, and Economic Security Act*. The CARES Act provisions began to expire in July 2020, but some have been extended by regulatory action.

- Additional federal unemployment funds expired July 31, 2020.
- Statutory eviction freeze for federally-backed properties expired July 25, 2020.
- Foreclosure moratorium on federally-backed properties was extended by the FHFA on June 17, 2020 to last until “at least” August 31, 2020.

Additional phases of the CARES Act or other COVID-19 pandemic relief legislation may be enacted by Congress. We continue to evaluate the potential impact of the CARES Act on our business, including its continued impact to the U.S. economy; impacts to mortgages held or serviced by our members and that we accept as collateral; and the impacts on our MPF program.

*Additional COVID-19 Legislative and Regulatory Developments*. In light of the COVID-19 pandemic, governmental agencies, including the Securities and Exchange Commission, 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, some of which may have a direct or indirect impact on us or our 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.

For further discussion of the risks and potential risks relating to the COVID-19 pandemic, see **Risk Factors**, starting on page 63 of our Q1 2020 Form 10-Q.

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

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

Our Asset/Liability Management Committee provides 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 so that shocked rates will not go negative. As a result, we floored the down shock scenario at 10 bps. Due to the low rate environment, this floor setting was triggered in our down shock scenarios presented below.

| | **June 30, 2020** | | December 31, 2019 | |
|---|---|---|---|---|
| **Scenario as of** | **Change in Market Value of Equity** | **Loss Limit** | Change in Market Value of Equity | Loss Limit |
| -200 bp | **$ 622** | **$ (450)** | $ 199 | $ (450) |
| -100 bp | **516** | **(200)** | 58 | (200) |
| -50 bp | **311** | **(90)** | 29 | (90) |
| -25 bp | **243** | **(45)** | 15 | (45) |
| +25 bp | **(26)** | **(45)** | (20) | (45) |
| +50 bp | **(55)** | **(90)** | (46) | (90) |
| +100 bp | **(123)** | **(200)** | (107) | (200) |
| +200 bp | **(257)** | **(450)** | (243) | (450) |

**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.

The table below 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 June 30, 2020** | **$ 1** | **$ —** | **$ (4)** | **(26)** | **$ 1** |
| As of December 31, 2019 | (1) | (2) | (3) | (22) | 2 |

*Yield curve risk* – Change in market value for a one basis point parallel increase in the swap curve.
*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 (spread to swap curve)* – Change in market value for a one basis point parallel increase in the spread to the swap curve.
*Basis risk (mortgage spread)* – Change in market value for a one basis point increase in mortgage rates.

As of June 30, 2020, our sensitivity to changes in implied volatility using these models was nil, compared to $(2) million at December 31, 2019. 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 in years of duration equity. The lengthening of duration of equity compared with year end was primarily due to the increased primary-secondary mortgage rate spread. 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 second half of the year.

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

| | Duration of equity in years | | |
|---|---|---|---|
| Scenario as of | Down 200 bps | Base | Up 200 bps |
| **June 30, 2020** | **1.9** | **1.7** | **2.3** |
| December 31, 2019 | 2.2 | 1.2 | 2.4 |

As of June 30, 2020, on a U.S. GAAP basis, our fair value surplus (relative to book value) was $215 million, and our market value of equity to book value of equity ratio was 104%, compared to $266 million and 105% at December 31, 2019. The COVID-19 pandemic caused disruption in the financial markets in first quarter of 2020. With the government and Federal Reserve accommodated policies in place, the market normalized in second quarter of 2020. Our market to book value of total capital for regulatory risk-based capital purposes differs from this GAAP calculation, as discussed in **Note 11 - Capital and Mandatorily Redeemable Capital Stock (MRCS)** to the financial statements.

## Item 4. Controls and Procedures.

### 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.

### Changes in Internal Control Over Financial Reporting

For the most recent quarter presented in this Form 10-Q, 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. For further information, see **Item 9A. Controls and Procedures** on page 81 of our 2019 Form 10-K.

## PART II - OTHER INFORMATION

### Item 1. Legal Proceedings.

For a discussion of the litigation relating to private label MBS bonds purchased by the Bank, see **Item 3. Legal Proceedings** on page 30 of our 2019 Form 10-K.

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

### Item 1A. Risk Factors.

In addition to the information presented in this report, readers should carefully consider the factors set forth in the **Risk Factors** section on page 18 in our 2019 Form 10-K and on page 63 in our Q1 2020 Form 10-Q, which could materially affect our business, financial condition, or future results. These risks are not the only risks facing us. Additional risks and uncertainties not currently known to us or that we currently deem to be immaterial may also severely affect us.

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

Not applicable.

### Item 3. Defaults Upon Senior Securities.

None.

### Item 4. Mine Safety Disclosures.

Not applicable.

### Item 5. Other Information.

None.

**Item 6. Exhibits.**

| | |
|---|---|
| 4.1 | Capital Plan of the Federal Home Loan Bank of Chicago, as amended and restated effective July 1, 2020* |
| 10.1 | Fourth Amendment to Lease, dated April 24, 2020 |
| 31.1 | Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 by the Principal Executive Officer |
| 31.2 | Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 by the Principal Financial Officer |
| 32.1 | Certification pursuant to 18 U.S.C. 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 by the Principal Executive Officer |
| 32.2 | Certification pursuant to 18 U.S.C. 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 by the Principal Financial Officer |
| 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 |
| 101.CAL | Inline XBRL Taxonomy Extension Calculation Linkbase Document |
| 101.DEF | Inline XBRL Taxonomy Extension Definition Linkbase Document |
| 101.LAB | Inline XBRL Taxonomy Extension Label Linkbase Document |
| 101.PRE | Inline XBRL Taxonomy Extension Presentation Linkbase Document |
| 104 | Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101) |

* Filed as Exhibit 4.1 with our 8-K Current Report on May 19, 2020 SEC File No. 000-51401

**Glossary of Terms**

**Advances:** Secured loans to members.

**ABS:** Asset backed securities.

**AFS:** Available-for-sale debt securities.

**AOCI:** Accumulated Other Comprehensive Income.

**Capital Plan (or Amended Capital Plan):** The Amended and Restated Capital Plan of the Federal Home Loan Bank of Chicago, effective as of July 1, 2020.

**CARES Act:** The Coronavirus, Aid, Relief, and Economic Security Act, enacted March 27, 2020.

**CE Amount:** A PFI's assumption of credit risk 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.

**CFTC:** Commodity Futures Trading Commission

**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.

**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, and as amended from time to time.

**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.

**FFELP:** Federal Family Education Loan Program.

**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.

**FHLB Act:** The Federal Home Loan Bank Act of 1932, as amended.

**FHLBs:** The 11 Federal Home Loan Banks or subset thereof.

**FHLB System:** The 11 FHLBs and the Office of Finance.

**FHLB Chicago:** The Federal Home Loan Bank of Chicago.

**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.

**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.

**HTM:** Held-to-maturity debt securities.

**LIBOR:** London Interbank Offered Rate.

**Liquidity AB:** Advisory Bulletin 2018-07 Liquidity Guidance, issued by the FHFA on August 23, 2018.

**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 (jumbo) MPF Loans from PFIs without any CE Amount 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 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 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.

**NRSRO:** Nationally Recognized Statistical Rating Organization.

**Office of Finance:** A joint office of the FHLBs established by the Finance Board to facilitate issuing and servicing of consolidated obligations.

**OIS:** Overnight Index Swap

**OTTI:** Other-than-temporary impairment.

**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.

**PMI:** Primary Mortgage Insurance.

**RCAP:** Reduced Capitalization Advance Program.

**Recorded Investment:** Recorded investment in a loan is its amortized cost plus related accrued interest receivable, if any. Recorded investment is not net of an allowance for credit losses but is net of any direct charge-off on a loan. Amortized cost is defined as either the amount funded or the cost to purchase MPF Loans. Specifically, the amortized cost includes the initial fair value amount of the 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.

**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

**SEC:** Securities and Exchange Commission.

**SOFR:** Secured Overnight Financing Rate.

**SMI:** Supplemental mortgage insurance.

**System or FHLB System:** The Federal Home Loan Bank System consisting of the 11 Federal Home Loan Banks and the Office of Finance.

**UPB:** Unpaid Principal Balance.

**U.S.:** United States

**Signatures**

Pursuant to the requirements 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/ Matthew R. Feldman |
| | Name: Matthew R. Feldman |
| | Title: President and Chief Executive Officer |
| Date: August 6, 2020 | (Principal Executive Officer) |
| | /s/ Roger D. Lundstrom |
| | Name: Roger D. Lundstrom |
| | Title: Executive Vice President and Chief Financial Officer |
| Date: August 6, 2020 | (Principal Financial Officer and Principal Accounting Officer) |

# FOURTH AMENDMENT TO LEASE

This **FOURTH AMENDMENT TO LEASE** (this "**Amendment**") is dated as of the 24 day of April, 2020, by and between 601 W COMPANIES LLC and BRICKELL 13 CHICAGO LLC, each a Delaware limited liability company, as tenants in common (collectively, "**Landlord**"), and FEDERAL HOME LOAN BANK OF CHICAGO, a corporation organized under the laws of the United States of America ("**Tenant**").

## RECITALS

A. Landlord and Tenant are parties to that certain Office Lease dated as of January 9, 2009 (the "**Original Lease**") as amended by a First Amendment to Office Lease dated as of June 18, 2012, a Second Amendment to Office Lease dated as of March 19, 2013, and a Third Amendment to Lease dated as of August 28, 2019 ("**Third Amendment**" and the Original Lease as amended the "**Lease**") pursuant to which Tenant leases certain premises located on the 17th, 18th and 19th floors (the "**Premises**") in the building commonly known as the Aon Center, located at 200 East Randolph Street, Chicago, Illinois (the "**Building**").

B. Pursuant to Article 36 of the Lease, Tenant has an option to terminate the Lease effective as of December 31, 2020 ("**Termination Date**") by written notice delivered to Landlord on or before December 31, 2019 ("**Termination Election Date**") and payment of a Termination Fee determined as provided in the Lease. Pursuant to the Third Amendment, the Termination Election Date would move to April 30, 2020, if the OPO Landlord did not deliver possession of the OPO Premises for reasons other than Tenant Delay by December 1, 2019.

C. The OPO Landlord and Tenant acknowledge and agree that the OPO Landlord delivered the OPO Premises to Tenant on November 26, 2019. Notwithstanding the foregoing, however, Landlord and Tenant have, in any event, agreed to (i) extend the Termination Election Date under the Third Amendment; (ii) modify the date for payment of the Termination Fee; and (iii) extend the Termination Date as set forth in the Third Amendment in accordance with the terms and provisions of this Amendment.

**NOW, THEREFORE**, in consideration of the foregoing recitals, which are hereby made a material part hereof, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto agree as follows:

1. Recitals. The recitals set forth above are hereby incorporated into and made a material part of this Amendment. Capitalized terms used but not otherwise defined herein shall have the same meanings ascribed to them in the Lease.

2. Termination Option. Notwithstanding the provisions of Section 36 of the Lease, (i) Landlord shall permit Tenant to exercise the Termination Option as of the date of this Amendment, (ii) Tenant hereby exercises such Termination Option, (iii) Tenant shall pay to Landlord on or before April 30, 2020, the sum of $4,754,857 as the Termination Fee and (iv) the Termination Date is extended from December 31, 2020 to June 30, 2021.

3. Base Rent and Additional Rent. Tenant shall continue to pay Base Rent and Additional Rent for the Premises in accordance with the Lease through June 30, 2021.

4. Authority. If Tenant is a corporation, partnership, trust, association or other entity, Tenant and each person executing this Amendment on behalf of Tenant hereby covenants and warrants that (a) Tenant is duly incorporated or otherwise established or formed and validly existing under the laws of its state of incorporation, establishment or formation, (b) Tenant has and is duly qualified to do business in the state in which the Project is located, (c) Tenant has full corporate, partnership, trust, association or other appropriate power and authority to enter into this Amendment and to perform all of Tenant's obligations under the Lease, as amended by this Amendment, and (d) each person (and all of the persons if more than one signs) signing this Amendment on behalf of Tenant is duly and validly authorized to do so.

5. Lease in Full Force and Effect. Except as expressly provided herein, the Lease is unmodified hereby, remains in full force and effect, and is hereby ratified and confirmed by the parties hereto.

6. No Offer. Submission of this instrument for examination and signature by Tenant does not constitute an offer to lease or a reservation of or option for lease, and this instrument is not effective as a lease amendment or otherwise until duly executed and delivered by both Landlord and Tenant.

7. Conflicts. This Amendment and the Lease shall be deemed one instrument and in the event of a conflict between this Amendment and the Lease, the terms and provisions of this Amendment shall, in all instances and for all purposes, control.

8. Counterparts. This Amendment may be executed in any number of counterparts each of which shall be deemed an original, but all of which shall constitute one and the same instrument.

9. No Default. Tenant represents, warrants and covenants that to the best of Tenant's knowledge, Landlord and Tenant are not in default of any of the respective obligations under the Lease and no event has occurred which, with the passage of time or the giving of notice, or both, would constitute a default by either Landlord or Tenant thereunder

10. Landlord's Liability. Article 31 of the Lease (Exculpatory Provisions): (a) is incorporated in this Amendment by reference, but wherever it refers to the Lease it shall be deemed to refer also to this Amendment and the Lease; and (b) shall apply to all claims of Tenant against Landlord, and all obligations of Landlord, under this Amendment and the Lease.

*[SIGNATURES ON FOLLOWING PAGE]*

IN WITNESS WHEREOF, the parties hereto have executed this Amendment as of the date and year first above written.

**LANDLORD:**

**601 W Companies LLC**, a Delaware limited liability company

By:/s/ Mark Karasick

Name: Mark Karasick

Title: Managing Director

**Brickell 13 Chicago LLC**, a Delaware limited liability company

By:/s/ Mark Karasick

Name: Mark Karasick

Title: Managing Director

**TENANT:**

**FEDERAL HOME LOAN BANK CORPORATION**, a corporation organized under the laws of the United States of America

By:/s/ Roger D. Lundstrom

Name: Roger D. Lundstrom

Title: EVP-CFO

**Exhibit 31.1**

Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
by the Principal Executive Officer

I, Matthew R. Feldman, certify that:

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

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

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

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

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

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

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

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

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

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

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

Date: August 6, 2020

By: /s/ Matthew R. Feldman
Name: Matthew R. Feldman
Title: President and Chief Executive Officer
(Principal Executive Officer)

**Exhibit 31.2**

Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
by the Principal Financial Officer

I, Roger D. Lundstrom, certify that:

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

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

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

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

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

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

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

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

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

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

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

Date: August 6, 2020

By: /s/ Roger D. Lundstrom

Name: Roger D. Lundstrom

Title: Executive Vice President and Chief Financial Officer
(Principal Financial Officer and Principal Accounting Officer)

**Exhibit 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

In connection with the Quarterly Report of the Federal Home Loan Bank of Chicago (the “Bank”) on Form 10-Q for the period ended June 30, 2020 as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, Matthew R. Feldman, President and Chief Executive Officer, certify to my knowledge, pursuant to 18 U.S.C. Section 1350 (as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002), that:

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

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

| | | | |
|---|---|---|---|
| Date: | August 6, 2020 | By: | /s/ Matthew R. Feldman |
| | | Name: | Matthew R. Feldman |
| | | Title: | President and Chief Executive Officer<br>(Principal Executive Officer) |

*A signed original of this written statement has been provided to the Bank and will be retained by the Bank and furnished to the Securities and Exchange Commission or its staff upon request.*

**Exhibit 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

In connection with the Quarterly Report of the Federal Home Loan Bank of Chicago (the “Bank”) on Form 10-Q for the period ended June 30, 2020 as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, Roger D. Lundstrom, Executive Vice President and Chief Financial Officer certify to my knowledge, pursuant to 18 U.S.C. Section 1350 (as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002), that:

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

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

| | | | |
|---|---|---|---|
| Date: | August 6, 2020 | By: | /s/ Roger D. Lundstrom |
| | | Name: | Roger D. Lundstrom |
| | | Title: | Executive Vice President and Chief Financial Officer<br>(Principal Financial Officer and Principal Accounting Officer) |

*A signed original of this written statement has been provided to the Bank and will be retained by the Bank and furnished to the Securities and Exchange Commission or its staff upon request.*