UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-Q

(Mark One)

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

For the quarterly period ended: June 30, 2022

☐ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from to

Commission file number: 001-31343

Associated Banc-Corp

(Exact name of registrant as specified in its charter)

Wisconsin	**39-1098068**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
433 Main Street	
Green Bay, Wisconsin	**54301**
(Address of principal executive offices)	(Zip Code)

(920) 491-7500

(Registrant's telephone number, including area code)

(not applicable)

(Former name, former address and former fiscal year, if changed since last report)

Securities Registered Pursuant to Section 12(b) of the act:

Title of each class	Trading symbol(s)	Name of each exchange on which registered
Common stock, par value $0.01 per share	ASB	New York Stock Exchange
Depositary Shrs, each representing 1/40th intrst in a shr of 5.875% Non-Cum. Perp Pref Stock, Srs E	ASB PrE	New York Stock Exchange
Depositary Shrs, each representing 1/40th intrst in a shr of 5.625% Non-Cum. Perp Pref Stock, Srs F	ASB PrF	New York Stock Exchange

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 ☑

APPLICABLE ONLY TO CORPORATE ISSUERS:

The number of shares outstanding of registrant's common stock, par value $0.01 per share, at July 25, 2022 was 150,305,412.

ASSOCIATED BANC-CORP
Table of Contents

ASSOCIATED BANC-CORP
Commonly Used Acronyms and Abbreviations

The following listing provides a reference of common acronyms and abbreviations used throughout the document:

ACLL	Allowance for Credit Losses on Loans
AFS	Available for Sale
ALCO	Asset / Liability Committee
ARRC	Alternative Reference Rate Committee
ASC	Accounting Standards Codification
Associated / the Company / Corporation / our / we	Associated Banc-Corp collectively with all of its subsidiaries and affiliates
ASU	Accounting Standards Update
the Bank	Associated Bank, National Association
Basel III	International framework established by the Basel Committee on Banking Supervision for the regulation of capital and liquidity
bp	basis point(s)
CDs	Certificates of Deposit
CDIs	Core Deposit Intangibles
CECL	Current Expected Credit Losses
CET1	Common Equity Tier 1
CRA	Community Reinvestment Act
CRE	Commercial Real Estate
EAR	Earnings at Risk
Exchange Act	Securities Exchange Act of 1934, as amended
FASB	Financial Accounting Standards Board
FDIC	Federal Deposit Insurance Corporation
Federal Reserve	Board of Governors of the Federal Reserve System
FFELP	Federal Family Education Loan Program
FHLB	Federal Home Loan Bank
FHLMC	Federal Home Loan Mortgage Corporation
FICO	Fair Isaac Corporation, provider of a broad-based risk score to aid in credit decisions
FNMA	Federal National Mortgage Association
FOMC	Federal Open Market Committee
FTEs	Full-time equivalent employees
FTP	Funds Transfer Pricing
GAAP	Generally Accepted Accounting Principles
GNMA	Government National Mortgage Association
GSEs	Government-Sponsored Enterprises
HTM	Held to Maturity
LIBOR	London Interbank Offered Rate
LOCOM	Lower of Cost or Market
LTV	Loan-to-Value
MSRs	Mortgage Servicing Rights
MVE	Market Value of Equity
Net Free Funds	Noninterest-bearing sources of funds
NII	Net Interest Income
NPAs	Nonperforming Assets
OREO	Other Real Estate Owned
Parent Company	Associated Banc-Corp individually
PPP	Paycheck Protection Program

RAP	Retirement Account Plan - the Corporation's noncontributory defined benefit retirement plan
Repurchase Agreements	Securities sold under agreements to repurchase
Restricted Stock Awards	Restricted common stock and restricted common stock units to certain key employees
Retirement Eligible Colleagues	Colleagues whose retirement meets the early retirement or normal retirement definitions under the applicable equity compensation plan
ROCET1	Return on Common Equity Tier 1
Rockefeller	Rockefeller Capital Management
S&P	Standard & Poor's
SBA	Small Business Administration
SEC	U.S. Securities and Exchange Commission
Series C Preferred Stock	The Corporation's 6.125% Non-Cumulative Perpetual Preferred Stock, Series C, liquidation preference $1,000 per share
Series D Preferred Stock	The Corporation's 5.375% Non-Cumulative Perpetual Preferred Stock, Series D, liquidation preference $1,000 per share
Series E Preferred Stock	The Corporation's 5.875% Non-Cumulative Perpetual Preferred Stock, Series E, liquidation preference $1,000 per share
Series F Preferred Stock	The Corporation's 5.625% Non-Cumulative Perpetual Preferred Stock, Series F, liquidation preference $1,000 per share
SOFR	Secured Overnight Finance Rate
TBA	To-Be-Announced
TDRs	Troubled Debt Restructurings
Whitnell	Whitnell & Co.
YTD	Year-to-Date

PART I - FINANCIAL INFORMATION

ITEM 1. Financial Statements:

ASSOCIATED BANC-CORP
Consolidated Balance Sheets

(In Thousands, except share and per share data)	Jun 30, 2022 (Unaudited)	Dec 31, 2021 (Audited)
Assets		
Cash and due from banks	$ 397,364	$ 343,831
Interest-bearing deposits in other financial institutions	436,887	681,684
Federal funds sold and securities purchased under agreements to resell	32,820	—
AFS investment securities, at fair value	2,677,511	4,332,015
HTM investment securities, net, at amortized cost	3,945,206	2,238,947
Equity securities	19,039	18,352
Federal Home Loan Bank and Federal Reserve Bank stocks, at cost	237,616	168,281
Residential loans held for sale	42,676	136,638
Commercial loans held for sale	44,721	—
Loans	26,494,698	24,224,949
Allowance for loan losses	(280,771)	(280,015)
Loans, net	26,213,927	23,944,934
Tax credit and other investments	275,165	293,733
Premises and equipment, net	387,633	385,173
Bank and corporate owned life insurance	675,347	680,021
Goodwill	1,104,992	1,104,992
Other intangible assets, net	53,687	58,093
Mortgage servicing rights, net[(a)]	76,570	54,862
Interest receivable	95,426	80,528
Other assets	519,403	582,168
Total assets	$ 37,235,990	$ 35,104,253
Liabilities and Stockholders' Equity		
Noninterest-bearing demand deposits	$ 8,085,702	$ 8,504,077
Interest-bearing deposits	20,490,874	19,962,353
Total deposits	28,576,577	28,466,430
Federal funds purchased and securities sold under agreements to repurchase	682,839	319,532
Commercial paper	22,781	34,730
FHLB advances	3,258,039	1,621,047
Other long-term funding	249,820	249,324
Allowance for unfunded commitments	36,776	39,776
Accrued expenses and other liabilities	449,776	348,560
Total liabilities	$ 33,276,608	$ 31,079,399
Stockholders' Equity		
Preferred equity	$ 193,195	$ 193,195
Common equity		
Common stock	$ 1,752	$ 1,752
Surplus	1,710,319	1,713,851
Retained earnings	2,768,736	2,672,601
Accumulated other comprehensive (loss)	(182,788)	(10,317)
Treasury stock, at cost	(531,832)	(546,229)
Total common equity	3,766,187	3,831,658
Total stockholders' equity	3,959,382	4,024,853
Total liabilities and stockholders' equity	$ 37,235,990	$ 35,104,253
Preferred shares authorized (par value $1.00 per share)	750,000	750,000
Preferred shares issued and outstanding	200,000	200,000
Common shares authorized (par value $0.01 per share)	250,000,000	250,000,000
Common shares issued	175,216,409	175,216,409
Common shares outstanding	150,126,419	149,342,641

Numbers may not sum due to rounding.
(a) MSRs at December 31, 2021 were carried at LOCOM. On January 1, 2022, the Corporation made the irrevocable election to account for MSRs at fair value.

See accompanying notes to consolidated financial statements.

Item 1. Financial Statements Continued:

ASSOCIATED BANC-CORP
Consolidated Statements of Income (Unaudited)

(In Thousands, except per share data)	Three Months Ended Jun 30, 2022	Three Months Ended Jun 30, 2021	Six Months Ended Jun 30, 2022	Six Months Ended Jun 30, 2021
Interest income				
Interest and fees on loans	$ 199,876	$ 174,228	$ 367,573	$ 348,277
Interest and dividends on investment securities				
Taxable	18,317	8,840	34,789	15,855
Tax-exempt	16,379	14,366	32,487	28,528
Other interest	2,420	1,826	4,413	3,521
Total interest income	236,991	199,260	439,261	396,180
Interest expense				
Interest on deposits	8,019	4,609	11,591	10,519
Interest on federal funds purchased and securities sold under agreements to repurchase	406	30	444	55
Interest on other short-term funding	1	7	2	13
Interest on FHLB advances	9,689	9,524	17,871	19,017
Interest on long-term funding	2,730	5,575	5,460	11,160
Total interest expense	20,845	19,745	35,367	40,764
Net interest income	216,146	179,515	403,893	355,416
Provision for credit losses	(2)	(35,004)	(3,992)	(58,009)
Net interest income after provision for credit losses	216,148	214,519	407,886	413,425
Noninterest income				
Wealth management fees	21,332	22,706	43,735	45,120
Service charges and deposit account fees	16,506	15,549	33,363	30,404
Card-based fees	11,442	10,982	21,368	20,725
Other fee-based revenue	4,360	4,244	8,126	8,840
Capital markets, net	8,010	5,696	16,656	13,814
Mortgage banking, net	6,145	8,128	14,536	32,054
Bank and corporate owned life insurance	4,106	3,088	6,177	5,791
Asset gains (losses), net	1,677	(14)	1,865	4,796
Investment securities gains (losses), net	(8)	24	12	(16)
Gains on sale of branches, net[(a)]	—	36	—	1,038
Other	1,888	3,004	4,086	6,221
Total noninterest income	75,458	73,443	149,925	168,786
Noninterest expense				
Personnel	112,666	106,994	217,477	211,020
Technology	21,223	20,236	42,707	40,975
Occupancy	14,151	14,679	30,231	30,835
Business development and advertising	5,655	4,970	10,610	9,366
Equipment	4,960	5,481	9,920	10,999
Legal and professional	4,873	6,661	9,960	13,191
Loan and foreclosure costs	1,476	2,671	3,490	4,891
FDIC assessment	5,400	3,600	10,500	8,350
Other intangible amortization	2,203	2,203	4,405	4,439
Other	8,815	6,979	15,412	15,755
Total noninterest expense	181,420	174,475	354,712	349,821
Income before income taxes	110,187	113,487	203,099	232,389
Income tax expense	23,363	22,480	42,013	47,082
Net income	86,824	91,007	161,086	185,307
Preferred stock dividends	2,875	4,875	5,750	10,082
Net income available to common equity	$ 83,949	$ 86,131	$ 155,336	$ 175,226
Earnings per common share				
Basic	$ 0.56	$ 0.56	$ 1.04	$ 1.14
Diluted	$ 0.56	$ 0.56	$ 1.03	$ 1.13
Average common shares outstanding				
Basic	149,083	152,042	148,933	152,198
Diluted	150,203	153,381	150,265	153,473

Numbers may not sum due to rounding.
(a) Includes the deposit premium on the sale of branches net of miscellaneous costs to sell. See Note 2 Acquisitions and Dispositions for additional details on the branch sales.

See accompanying notes to consolidated financial statements.

Item 1. Financial Statements Continued:

ASSOCIATED BANC-CORP
Consolidated Statements of Comprehensive Income (Unaudited)

	Three Months Ended Jun 30,		Six Months Ended Jun 30,	
($ in Thousands)	2022	2021	2022	2021
Net income	$ 86,824	$ 91,007	$ 161,086	$ 185,307
Other comprehensive income (loss), net of tax				
AFS investment securities				
Net unrealized gains (losses)	(65,038)	7,978	(168,321)	(16,002)
Unrealized (losses) on AFS securities transferred to HTM securities	—	—	(67,604)	—
Amortization of net unrealized losses on AFS securities transferred to HTM securities	3,273	645	4,381	1,163
Reclassification adjustment for net losses (gains) realized in net income	8	(24)	(12)	16
Income tax (expense) benefit	15,998	(2,277)	59,096	3,574
Other comprehensive income (loss) on AFS securities	(45,758)	6,322	(172,460)	(11,249)
Defined benefit pension and postretirement obligations				
Amortization of prior service cost	(81)	(37)	(163)	(74)
Amortization of actuarial loss	74	1,050	147	2,100
Income tax (expense) benefit	2	(253)	4	(506)
Other comprehensive income (loss) on pension and postretirement obligations	(6)	760	(12)	1,519
Total other comprehensive income (loss)	(45,764)	7,082	(172,472)	(9,729)
Comprehensive income (loss)	$ 41,060	$ 98,088	$ (11,386)	$ 175,578

Numbers may not sum due to rounding.

See accompanying notes to consolidated financial statements.

Item 1. Financial Statements Continued:

ASSOCIATED BANC-CORP

Consolidated Statements of Changes in Stockholders' Equity (Unaudited)

(In Thousands, except per share data)	Preferred Equity	Common Stock	Surplus	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Treasury Stock	Total
Balance, December 31, 2021	$ 193,195	$ 1,752	$ 1,713,851	$ 2,672,601	$ (10,317)	$ (546,229)	$ 4,024,853
Change in accounting principle[(a)]	—	—	—	1,713	—	—	1,713
Total shareholder's equity at beginning of period, as adjusted	193,195	1,752	1,713,851	2,674,314	(10,317)	(546,229)	4,026,566
Comprehensive income (loss)							
Net income	—	—	—	74,262	—	—	74,262
Other comprehensive (loss)	—	—	—	—	(126,708)	—	(126,708)
Comprehensive (loss)							(52,445)
Common stock issued							
Stock-based compensation plans, net	—	—	(11,911)	—	—	18,565	6,654
Purchase of treasury stock, stock-based compensation plans	—	—	—	—	—	(5,193)	(5,193)
Cash dividends							
Common stock, $0.20 per share	—	—	—	(30,583)	—	—	(30,583)
Preferred stock[(b)]	—	—	—	(2,875)	—	—	(2,875)
Stock-based compensation expense, net	—	—	6,164	—	—	—	6,164
Balance, March 31, 2022	$ 193,195	$ 1,752	$ 1,708,104	$ 2,715,118	$ (137,024)	$ (532,858)	$ 3,948,287
Comprehensive income:							
Net income	—	—	—	86,824	—	—	86,824
Other comprehensive (loss)	—	—	—	—	(45,764)	—	(45,764)
Comprehensive income							41,060
Common stock issued:							
Stock-based compensation plans, net	—	—	(1,771)	—	—	1,910	139
Purchase of treasury stock, stock-based compensation plans	—	—	—	—	—	(884)	(884)
Cash dividends:							
Common stock, $0.20 per share	—	—	—	(30,331)	—	—	(30,331)
Preferred stock[(b)]	—	—	—	(2,875)	—	—	(2,875)
Stock-based compensation expense, net	—	—	3,986	—	—	—	3,986
Balance, June 30, 2022	$ 193,195	$ 1,752	$ 1,710,319	$ 2,768,736	$ (182,788)	$ (531,832)	$ 3,959,382

Numbers may not sum due to rounding.
(a) MSRs at December 31, 2021 were carried at LOCOM. On January 1, 2022, the Corporation made the irrevocable election to account for MSRs at fair value.
(b) Series E, $0.3671875 per share; and Series F, $0.3515625 per share.

(In Thousands, except per share data)	Preferred Equity	Common Stock	Surplus	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Treasury Stock	Total
Balance, December 31, 2020	$ 353,512	$ 1,752	$ 1,720,329	$ 2,458,920	$ 12,618	$ (456,198)	$ 4,090,933
Comprehensive income (loss)							
Net income	—	—	—	94,301	—	—	94,301
Other comprehensive (loss)	—	—	—	—	(16,811)	—	(16,811)
Comprehensive income							77,490
Common stock issued							
Stock-based compensation plans, net	—	—	(16,986)	—	—	27,542	10,556
Purchase of treasury stock, open market purchases	—	—	—	—	—	(17,973)	(17,973)
Purchase of treasury stock, stock-based compensation plans	—	—	—	—	—	(3,593)	(3,593)
Cash dividends							
Common stock, $0.18 per share	—	—	—	(27,870)	—	—	(27,870)
Preferred stock[(a)]	—	—	—	(5,207)	—	—	(5,207)
Stock-based compensation expense, net	—	—	3,444	—	—	—	3,444
Balance, March 31, 2021	$ 353,512	$ 1,752	$ 1,706,786	$ 2,520,144	$ (4,193)	$ (450,222)	$ 4,127,780
Comprehensive income:							
Net income	—	—	—	91,007	—	—	91,007
Other comprehensive income	—	—	—	—	7,082	—	7,082
Comprehensive income							98,088
Common stock issued:							
Stock-based compensation plans, net	—	—	(3,632)	—	—	11,250	7,618
Purchase of treasury stock, open market purchases	—	—	—	—	—	(29,972)	(29,972)
Purchase of treasury stock, stock-based compensation plans	—	—	—	—	—	(856)	(856)
Cash dividends:							
Common stock, $0.18 per share	—	—	—	(27,822)	—	—	(27,822)
Preferred stock[(b)]	—	—	—	(4,875)	—	—	(4,875)
Redemption of preferred stock	(63,313)	—	—	(1,687)	—	—	(65,000)
Stock-based compensation expense, net	—	—	5,092	—	—	—	5,092
Balance, June 30, 2021	$ 290,200	$ 1,752	$ 1,708,246	$ 2,576,766	$ 2,889	$ (469,801)	$ 4,110,052

Numbers may not sum due to rounding.
(a) Series C, $0.3828125 per share; Series D, $0.3359375 per share; Series E, $0.3671875 per share; and Series F, $0.3515625 per share.
(b) Series C, $0.3197115 per share; Series D, $0.3359375 per share; Series E, $0.3671875 per share; and Series F, $0.3515625 per share.

See accompanying notes to consolidated financial statements.

Item 1. Financial Statements Continued:

ASSOCIATED BANC-CORP
Consolidated Statements of Cash Flows (Unaudited)

($ in Thousands)	Six Months Ended Jun 30, 2022	2021
Cash Flow From Operating Activities		
Net income	$ 161,086	$ 185,307
Adjustments to reconcile net income to net cash provided by (used in) operating activities		
Provision for credit losses	(3,992)	(58,009)
Depreciation and amortization	22,741	24,200
Change in MSRs valuation[a]	(19,400)	(10,239)
Amortization of other intangible assets	4,405	4,439
Amortization and accretion on earning assets, funding, and other, net	10,315	10,796
Net amortization of tax credit investments	17,072	16,552
Losses (gains) on sales of investment securities, net	(12)	16
Asset (gains), net	(1,865)	(4,796)
(Gains) on sale of branch, net	—	(1,038)
(Gain) loss on mortgage banking activities, net	3,036	(24,008)
Mortgage loans originated and acquired for sale	(403,951)	(889,315)
Proceeds from sales of mortgage loans held for sale	500,410	884,581
Changes in certain assets and liabilities		
(Increase) decrease in interest receivable	(14,898)	8,466
(Decrease) increase in interest payable	1,501	(4,907)
(Decrease) increase in expense payable	(24,791)	11,274
Decrease in net derivative position	231,332	56,833
Net change in other assets and other liabilities	6,051	20,049
Net cash provided by operating activities	489,039	230,202
Cash Flow From Investing Activities		
Net decrease (increase) in loans	(2,271,051)	478,170
Purchases of		
AFS securities	(502,912)	(1,162,109)
HTM securities	(202,271)	(81,368)
Federal Home Loan Bank and Federal Reserve Bank stocks and equity securities	(69,339)	(1)
Premises, equipment, and software, net of disposals	(33,373)	(19,706)
Proceeds from		
Sales of AFS and equity securities	1,069	158,743
Prepayments, calls, and maturities of AFS securities	296,179	699,584
Prepayments, calls, and maturities of HTM securities	111,796	195,107
Sales, prepayments, calls, and maturities of other assets	23,523	12,421
Net cash received in business segment sale	—	2,415
Net change in tax credit and alternative investments	(34,186)	(34,200)
Net cash provided by (used in) investing activities	(2,680,566)	249,056
Cash Flow From Financing Activities		
Net increase in deposits	110,280	813,098
Net decrease in deposits due to branch sales	—	(31,083)
Net increase (decrease) in short-term funding	351,358	(26,112)
Net increase in short-term FHLB advances	2,045,000	—
Repayment of long-term FHLB advances	(408,870)	(18,049)
Proceeds from long-term FHLB advances	916	5,251
(Repayment) proceeds of finance lease principal	348	(1,035)
Proceeds from issuance of common stock for stock-based compensation plans	6,793	18,174
Redemption of preferred shares	—	(65,000)
Purchase of treasury stock, open market purchases	—	(47,945)
Purchase of treasury stock, stock-based compensation plans	(6,078)	(4,450)
Cash dividends on common stock	(60,914)	(55,693)
Cash dividends on preferred stock	(5,750)	(10,082)
Net cash provided by financing activities	2,033,084	577,074
Net increase (decrease) in cash and cash equivalents	(158,444)	1,056,332
Cash and cash equivalents at beginning of period	1,025,515	716,048
Cash and cash equivalents at end of period[b]	$ 867,071	$ 1,772,379

Numbers may not sum due to rounding.

(a) On January 1, 2022, the Corporation made the irrevocable election to account for MSRs at fair value. For all prior periods, MSRs were carried at LOCOM.

(b) No restricted cash due to the Federal Reserve reducing the required reserve ratio to zero.

ASSOCIATED BANC-CORP
Consolidated Statements of Cash Flows (Unaudited)

($ in Thousands)	Six Months Ended Jun 30, 2022	Six Months Ended Jun 30, 2021
Supplemental disclosures of cash flow information		
Cash paid for interest	$ 33,533	$ 44,782
Cash (received from) income and franchise taxes	2,432	54,179
Loans and bank premises transferred to OREO	1,817	18,535
Capitalized mortgage servicing rights	5,231	7,488
Loans transferred from held for sale into portfolio, net	4,149	9,970
Transfer of AFS securities to HTM securities	1,621,990	—
Unsettled trades to purchase securities	1,450	—

Item 1. Financial Statements Continued:

ASSOCIATED BANC-CORP
Notes to Consolidated Financial Statements

These interim consolidated financial statements have been prepared according to the rules and regulations of the SEC and, therefore, certain information and footnote disclosures normally presented in accordance with GAAP have been omitted or abbreviated. The information contained on the consolidated financial statements and footnotes in Associated Banc-Corp's 2021 Annual Report on Form 10-K should be referred to in connection with the reading of these unaudited interim consolidated financial statements.

Note 1 Basis of Presentation

In the opinion of management, the accompanying unaudited consolidated financial statements contain all adjustments necessary to present fairly the financial position, results of operations and comprehensive income, changes in stockholders' equity, and cash flows of the Corporation and Parent Company for the periods presented, and all such adjustments are of a normal recurring nature. The consolidated financial statements include the accounts of all subsidiaries. All significant intercompany transactions and balances have been eliminated in consolidation. The results of operations for the interim periods are not necessarily indicative of the results to be expected for the full year.

In preparing the consolidated financial statements, management is required to make estimates and assumptions that affect the reported amounts of assets and liabilities as of the date of the balance sheet and revenues and expenses for the period. Actual results could differ significantly from those estimates. Estimates that are particularly susceptible to significant change include the determination of the ACLL and MSRs valuation. Management has evaluated subsequent events for potential recognition or disclosure.

Within the tables presented, certain columns and rows may not sum due to the use of rounded numbers for disclosure purposes.

Note 2 Acquisitions and Dispositions

Acquisitions:

The Corporation did not have any acquisitions during the first six months of 2022 or during 2021.

Dispositions:

2021

On March 1, 2021, the Corporation closed on the sale of its wealth management subsidiary, Whitnell, to Rockefeller for a purchase price of $8 million. Associated reported a first quarter 2021 pre-tax gain of $2 million, included in asset gains, net on the consolidated statements of income, in conjunction with the sale.

On February 26, 2021, the Bank completed the sale of one branch located in Monroe, Wisconsin to Summit Credit Union. Under the terms of the transaction, the Bank sold $31 million in total deposits and no loans. The Bank received an approximately 4% purchase premium on deposits transferred.

Note 3 Summary of Significant Accounting Policies

The accounting and reporting policies of the Corporation conform to U.S. GAAP and to general practice within the financial services industry. A discussion of these policies can be found in Note 1 Summary of Significant Accounting Policies included in the Corporation's 2021 Annual Report on Form 10-K. As a result of the irrevocable election to account for MSRs under the fair value measurement methodology, as permitted under ASC 860-50-35-3, there has been a change to the Corporation's significant accounting policies since December 31, 2021, which is described below.

Mortgage Servicing Rights

The Corporation sells residential mortgage loans in the secondary market and typically retains the rights to service the loans sold. Upon sale, a MSRs asset is capitalized, which represents the then current fair value of future net cash flows expected to be realized for performing servicing activities. On January 1, 2022, the Corporation made the irrevocable election to account for its MSRs asset under the fair value measurement method. As a result of the change, a cumulative effect adjustment of $2 million, increasing retained earnings on the consolidated balance sheets, was recognized. Under this methodology, changes in the fair value are recognized in earnings as they occur through mortgage banking, net on the consolidated statements of income.

MSRs are not traded in active markets. A cash flow model is used to determine fair value. Key assumptions and estimates, including projected prepayment speeds, assumed servicing costs, ancillary income, costs to service delinquent loans, costs of foreclosure, and discount rates with option-adjusted spreads, used by this model are based on current market sources. Assumptions used to value MSRs are considered significant unobservable inputs. A separate third-party model is used to estimate prepayment speeds based on interest rates, housing turnover rates, estimated loan curtailment, anticipated defaults and other relevant factors. Fair value estimates from outside sources are received periodically to corroborate the results of the valuation model.

New Accounting Pronouncements Adopted

There were no applicable material accounting pronouncements adopted by the Corporation since December 31, 2021.

Future Accounting Pronouncements

The expected impact of applicable material accounting pronouncements recently issued or proposed but not yet required to be adopted are discussed in the table below. To the extent that the adoption of new accounting standards materially affects the Corporation's financial condition, results of operations, liquidity or disclosures, the impacts are discussed in the applicable sections of this financial review.

Standard	Description	Date of anticipated adoption	Effect on financial statements
ASU 2022-02 Financial Instruments-Credit Losses (Topic 326): Troubled Debt Restructurings and Vintage Disclosures	The FASB issued these amendments to eliminate accounting guidance for TDRs by creditors in Subtopic 310-40, Receivables-Troubled Debt Restructurings by Creditors, while enhancing disclosure requirements for certain loan refinancings and restructurings by creditors when a borrower is experiencing financial difficulty, and to require that an entity disclose current-period gross writeoffs by year of origination for financing receivables and net investments in leases within the scope of Subtopic 326-20, Financial Instruments-Credit Losses-Measured at Amortized Cost. The amendments in this Update are effective for fiscal years beginning after December 15, 2022, including interim periods within those fiscal years, and should be applied prospectively, except as provided in the next sentence. For the transition method related to the recognition and measurement of TDRs, an entity has the option to apply a modified retrospective transition method, resulting in a cumulative-effect adjustment to retained earnings in the period of adoption. Early adoption is permitted if an entity has adopted the amendments in Update 2016-03, including adoption in an interim period.	1st Quarter 2023	Adoption of this amendment is not expected to have a material impact on the Corporation's results of operation, financial position or liquidity, but will result in additional disclosure requirements related to gross charge offs by vintage year and the removal of TDR disclosures, replaced by additional disclosures on the types of modifications of loans to borrowers experiencing financial difficulties.

Note 4 Earnings Per Common Share

Earnings per common share are calculated utilizing the two-class method. Basic earnings per common share are calculated by dividing the sum of distributed earnings to common shareholders and undistributed earnings allocated to common shareholders by the weighted average number of common shares outstanding. Diluted earnings per common share are calculated by dividing the sum of distributed earnings to common shareholders and undistributed earnings allocated to common shareholders by the weighted average number of common shares outstanding adjusted for the dilutive effect of common stock awards (outstanding stock options and unvested restricted stock awards). Presented below are the calculations for basic and diluted earnings per common share:

	Three Months Ended Jun 30,		Six Months Ended Jun 30,	
(In Thousands, except per share data)	2022	2021	2022	2021
Net income	$ 86,824	$ 91,007	$ 161,086	$ 185,307
Preferred stock dividends	(2,875)	(4,875)	(5,750)	(10,082)
Net income available to common equity	$ 83,949	$ 86,131	$ 155,336	$ 175,226
Common shareholder dividends	(30,126)	(27,620)	(60,499)	(55,280)
Unvested share-based payment awards	(205)	(203)	(415)	(412)
Undistributed earnings	$ 53,618	$ 58,309	$ 94,422	$ 119,533
Undistributed earnings allocated to common shareholders	$ 53,257	$ 57,887	$ 93,807	$ 118,722
Undistributed earnings allocated to unvested share-based payment awards	361	422	615	810
Undistributed earnings	$ 53,618	$ 58,309	$ 94,422	$ 119,533
Basic				
Distributed earnings to common shareholders	$ 30,126	$ 27,620	$ 60,499	$ 55,280
Undistributed earnings allocated to common shareholders	53,257	57,887	93,807	118,722
Total common shareholders earnings, basic	$ 83,383	$ 85,506	$ 154,306	$ 174,002
Diluted				
Distributed earnings to common shareholders	$ 30,126	$ 27,620	$ 60,499	$ 55,280
Undistributed earnings allocated to common shareholders	53,257	57,887	93,807	118,722
Total common shareholders earnings, diluted	$ 83,383	$ 85,506	$ 154,306	$ 174,002
Weighted average common shares outstanding	149,083	152,042	148,933	152,198
Effect of dilutive common stock awards	1,121	1,339	1,332	1,275
Diluted weighted average common shares outstanding	150,203	153,381	150,265	153,473
Basic earnings per common share	$ 0.56	$ 0.56	$ 1.04	$ 1.14
Diluted earnings per common share	$ 0.56	$ 0.56	$ 1.03	$ 1.13

Anti-dilutive common stock options of approximately 3 million for the three and six months ended June 30, 2022 and 2021 were excluded from the earnings per common share calculation.

Note 5 Stock-Based Compensation

The fair values of stock options and restricted stock awards are amortized as compensation expense on a straight-line basis over the vesting period of the grants. For colleagues who meet the definition of retirement eligible under the 2017 Incentive Compensation Plan and the 2020 Incentive Compensation Plan, expenses related to stock options and restricted stock awards are fully recognized on the date the colleague meets the definition of normal or early retirement. Compensation expense recognized is included in personnel expense on the consolidated statements of income.

A summary of the Corporation's stock option activity for the six months ended June 30, 2022 is presented below:

Stock Options	Shares[(a)]	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term	Aggregate Intrinsic Value[(a)]
Outstanding at December 31, 2021	4,814	$ 20.72	5.96 years	$ 12,532
Exercised	367	17.64		
Outstanding at June 30, 2022	4,447	$ 20.97	5.56 years	$ 1,770
Options Exercisable at June 30, 2022	3,805	$ 21.28	5.24 years	$ 1,341

(a) In thousands

Intrinsic value represents the amount by which the fair market value of the underlying stock exceeds the exercise price of the stock option. For the six months ended June 30, 2022, the intrinsic value of stock options exercised was $3 million compared to $6 million for the six months ended June 30, 2021. For the six months ended June 30, 2022, the total fair value of stock options vested was $2 million compared to $3 million for the six months ended June 30, 2021.

The Corporation recognized compensation expense for the vesting of stock options of approximately $469,000 for the six months ended June 30, 2022, compared to approximately $755,000 for the six months ended June 30, 2021. Compensation expense for the six months ended June 30, 2022 related to accelerated vesting of stock options for retirement eligible colleagues was immaterial. At June 30, 2022, the Corporation had approximately $855,000 of unrecognized compensation expense related to stock options that is expected to be recognized over the remaining requisite service periods that extend predominately through the first quarter of 2024.

The Corporation also has issued time-based and performance-based restricted stock awards under the 2017 Incentive Compensation Plan and subsequent 2020 Incentive Compensation Plan. Performance awards are based on performance goals determined by the Corporation's Compensation and Benefits Committee, with vesting ranging from a minimum of 0% to a maximum of 150% of the target award. Performance awards are valued utilizing a Monte Carlo simulation model to estimate fair value of the awards at the grant date.

The following table summarizes information about the Corporation’s restricted stock awards activity for the six months ended June 30, 2022:

Restricted Stock Awards	Shares[(a)]	Weighted Average Grant Date Fair Value
Outstanding at December 31, 2021	2,635	$ 19.87
Granted	673	23.44
Vested	754	23.16
Forfeited	22	21.35
Outstanding at June 30, 2022	2,532	$ 20.64

(a) In thousands

The Corporation amortizes the expense related to restricted stock awards as compensation expense over the vesting period specified in the grant's award agreement. Performance-based restricted stock awards granted during 2021 and 2022 will cliff-vest after the three year performance period has ended. Service-based restricted stock awards granted during 2021 and 2022 will vest ratably over a period of four years. Expense for restricted stock awards of $10 million was recorded for the six months ended June 30, 2022 and $8 million was recorded for the six months ended June 30, 2021. Included in compensation expense for the first six months of 2022 was $3 million of expense for the accelerated vesting of restricted stock awards granted to retirement eligible colleagues. The Corporation had $27 million of unrecognized compensation costs related to restricted stock awards at June 30, 2022 that are expected to be recognized over the remaining requisite service periods that extend predominately through the first quarter of 2026.

The Corporation has the ability to issue shares from treasury or new shares upon the exercise of stock options or the granting of restricted stock awards. The Board of Directors has authorized management to repurchase shares of the Corporation’s common stock in the market, to be made available for issuance in connection with the Corporation’s employee incentive plans and for other corporate purposes. The repurchase of shares, if any, will be based on market and investment opportunities, capital levels, growth prospects, and regulatory constraints. Such repurchases may occur from time to time in open market purchases, block transactions, private transactions, accelerated share repurchase programs, or similar facilities.

Note 6 Investment Securities

Investment securities are designated as AFS, HTM, or equity on the consolidated balance sheets at the time of purchase. The amortized cost and fair values of AFS and HTM securities at June 30, 2022 were as follows:

($ in Thousands)	Amortized Cost	Gross Unrealized Gains	Gross Unrealized (Losses)	Fair Value
AFS investment securities				
U. S. Treasury securities	$ 124,365	$ —	$ (11,256)	$ 113,109
Agency securities	15,000	—	(1,041)	13,959
Obligations of state and political subdivisions (municipal securities)	361,712	648	(3,518)	358,842
Residential mortgage-related securities				
FNMA / FHLMC	1,959,641	547	(148,585)	1,811,603
GNMA	87,779	—	(1,542)	86,238
Commercial mortgage-related securities				
FNMA / FHLMC	19,207	—	(601)	18,606
GNMA	108,153	—	(2,473)	105,680
Asset backed securities				
FFELP	168,357	—	(7,092)	161,264
SBA	5,287	40	(45)	5,281
Other debt securities	3,000	—	(71)	2,929
Total AFS investment securities	$ 2,852,501	$ 1,234	$ (176,224)	$ 2,677,511
HTM investment securities				
U. S. Treasury securities	$ 998	$ —	$ (44)	$ 955
Obligations of state and political subdivisions (municipal securities)	1,717,627	4,002	(161,116)	1,560,514
Residential mortgage-related securities				
FNMA / FHLMC	967,421	34,108	(125,444)	876,085
GNMA	42,248	37	(1,637)	40,649
Private-label	375,638	12,693	(54,490)	333,841
Commercial mortgage-related securities				
FNMA/FHLMC	762,086	16,835	(131,851)	647,070
GNMA	79,250	799	(4,970)	75,079
Total HTM investment securities	$ 3,945,269	$ 68,474	$ (479,551)	$ 3,534,192

During the first quarter of 2022, the Corporation redesignated approximately $1.6 billion of mortgage-related securities from AFS to HTM. The reclassification of these investment securities was accounted for at fair value. Management elected to transfer these investment securities as the Corporation has the positive intent and ability to hold these investment securities to maturity. See Note 16 for additional information on the unrealized losses on investment securities transferred from AFS to HTM.

The amortized cost and fair values of AFS and HTM securities at December 31, 2021 were as follows:

($ in Thousands)	Amortized Cost	Gross Unrealized Gains	Gross Unrealized (Losses)	Fair Value
AFS investment securities				
U. S. Treasury securities	$ 124,291	$ —	$ (1,334)	$ 122,957
Agency securities	15,000	—	(103)	14,897
Obligations of state and political subdivisions (municipal securities)	381,517	18,940	—	400,457
Residential mortgage-related securities				
FNMA / FHLMC	2,709,399	3,729	(21,249)	2,691,879
GNMA	66,189	1,591	—	67,780
Private-label	332,028	31	(2,335)	329,724
Commercial mortgage-related securities				
FNMA / FHLMC	357,240	2,686	(9,302)	350,623
GNMA	165,439	1,360	—	166,799
Asset backed securities				
FFELP	177,974	475	(1,123)	177,325
SBA	6,594	39	(54)	6,580
Other debt securities	3,000	—	(6)	2,994
Total AFS investment securities	$ 4,338,671	$ 28,850	$ (35,506)	$ 4,332,015
HTM investment securities				
U. S. Treasury securities	$ 1,000	$ 1	$ —	$ 1,001
Obligations of state and political subdivisions (municipal securities)	1,628,759	113,179	(1,951)	1,739,988
Residential mortgage-related securities				
FNMA / FHLMC	34,347	1,792	—	36,139
GNMA	48,053	1,578	—	49,631
Commercial mortgage-related securities				
FNMA / FHLMC	425,937	122	(6,659)	419,400
GNMA	100,907	1,799	(200)	102,506
Total HTM investment securities	$ 2,239,003	$ 118,471	$ (8,809)	$ 2,348,664

Expected maturities may differ from contractual maturities because borrowers may have the right to call or prepay obligations with or without call or prepayment penalties. The expected maturities of AFS and HTM securities at June 30, 2022, are shown below:

	AFS		HTM	
($ in Thousands)	Amortized Cost	Fair Value	Amortized Cost	Fair Value
Due in one year or less	$ 6,905	$ 6,895	$ 15,582	$ 15,627
Due after one year through five years	98,473	94,572	34,915	35,027
Due after five years through ten years	361,344	350,609	169,413	167,713
Due after ten years	37,355	36,762	1,498,715	1,343,101
Total debt securities	504,077	488,839	1,718,625	1,561,468
Residential mortgage-related securities				
FNMA / FHLMC	1,959,641	1,811,603	967,421	876,085
GNMA	87,779	86,238	42,248	40,649
Private-label	—	—	375,638	333,841
Commercial mortgage-related securities				
FNMA / FHLMC	19,207	18,606	762,086	647,070
GNMA	108,153	105,680	79,250	75,079
Asset backed securities				
FFELP	168,357	161,264	—	—
SBA	5,287	5,281	—	—
Total investment securities	$ 2,852,501	$ 2,677,511	$ 3,945,269	$ 3,534,192
Ratio of fair value to amortized cost		93.9 %		89.6 %

On a quarterly basis, the Corporation refreshes the credit quality of each HTM security. The following table summarizes the credit quality indicators of HTM securities at amortized cost at June 30, 2022:

($ in Thousands)	AAA	AA	A	Not Rated	Total
U. S. Treasury securities	$ 998	$ —	$ —	$ —	$ 998
Obligations of state and political subdivisions (municipal securities)	799,925	908,098	8,710	894	1,717,627
Residential mortgage-related securities					
FNMA / FHLMC	967,421	—	—	—	967,421
GNMA	42,248	—	—	—	42,248
Private-label	375,638	—	—	—	375,638
Commercial mortgage-related securities					
FNMA / FHLMC	762,086	—	—	—	762,086
GNMA	79,250	—	—	—	79,250
Total HTM securities	$ 3,027,567	$ 908,098	$ 8,710	$ 894	$ 3,945,269

The following table summarizes the credit quality indicators of HTM securities at amortized cost at December 31, 2021:

($ in Thousands)	AAA	AA	A	Not Rated	Total
U. S. Treasury securities	$ 1,000	$ —	$ —	$ —	$ 1,000
Obligations of state and political subdivisions (municipal securities)	702,399	914,591	10,873	896	1,628,759
Residential mortgage-related securities					
FNMA / FHLMC	34,347	—	—	—	34,347
GNMA	48,053	—	—	—	48,053
Commercial mortgage-related securities					
FNMA / FHLMC	425,937	—	—	—	425,937
GNMA	100,907	—	—	—	100,907
Total HTM securities	$ 1,312,642	$ 914,591	$ 10,873	$ 896	$ 2,239,003

Investment securities gains (losses), net includes proceeds from the sale of AFS investment securities. The proceeds from the sale of AFS investment securities for the three and six months ended June 30, 2022 and 2021, are shown below:

	Three Months Ended Jun 30,		Six Months Ended Jun 30,	
($ in Thousands)	2022	2021	2022	2021
Gross gains on AFS securities	$ —	$ 386	$ 21	$ 421
Gross (losses) on AFS securities	(8)	(362)	(8)	(437)
Investment securities gains (losses), net	$ (8)	$ 24	$ 12	$ (16)
Proceeds from sales of AFS investment securities	$ 327	$ 107,412	$ 1,061	$ 158,708

During the second quarter of 2021, the Corporation sold $107 million of lower yielding FFELP student loan asset backed securities at an immaterial gain and reinvested the proceeds into higher yielding mortgage backed securities. During the first quarter of 2021, the Corporation sold $51 million of lower yielding U.S. Treasury and Agency securities at an immaterial loss to take advantage of the steeper yield curve by reinvesting the proceeds into similar but higher yielding, longer duration securities.

Investment securities with a carrying value of $2.6 billion and $2.3 billion at June 30, 2022 and December 31, 2021, respectively, were pledged to secure certain deposits or for other purposes.

Accrued interest receivable on HTM securities totaled $18 million and $15 million at June 30, 2022 and December 31, 2021, respectively. Accrued interest receivable on AFS securities totaled $7 million and $9 million at June 30, 2022 and December 31, 2021, respectively. Accrued interest receivable on both HTM and AFS securities is included in interest receivable on the consolidated balance sheets. There was no interest income reversed for investments going into nonaccrual at both June 30, 2022 and 2021.

A security is considered past due once it is 30 days past due under the terms of the agreement. At both June 30, 2022 and December 31, 2021, the Corporation had no past due HTM securities.

The allowance for credit losses on HTM securities was approximately $63,000 at June 30, 2022 and approximately $55,000 at December 31, 2021, attributable entirely to the Corporation's municipal securities, included in HTM investment securities, net, at amortized cost on the consolidated balance sheets. The Corporation also holds U.S. Treasury, municipal and mortgage-related securities issued by the U.S. government or a GSE which are backed by the full faith and credit of the U.S. government and, as a result, no allowance for credit losses has been recorded related to these securities.

The following represents gross unrealized losses and the related fair value of AFS and HTM securities, aggregated by investment category and length of time individual securities have been in a continuous unrealized loss position, at June 30, 2022:

	Less than 12 months			12 months or more			Total	
($ in Thousands)	Number of Securities	Unrealized (Losses)	Fair Value	Number of Securities	Unrealized (Losses)	Fair Value	Unrealized (Losses)	Fair Value
AFS investment securities								
U.S. Treasury securities	5	$ (10,141)	$ 104,289	2	$ (1,115)	$ 8,820	$ (11,256)	$ 113,109
Agency securities	1	(1,041)	13,959	—	—	—	(1,041)	13,959
Obligations of state and political subdivisions (municipal securities)	373	(3,518)	224,804	—	—	—	(3,518)	224,804
Residential mortgage-related securities								
FNMA / FHLMC	95	(125,142)	1,554,774	8	(23,443)	222,626	(148,585)	1,777,400
GNMA	17	(1,542)	86,238	—	—	—	(1,542)	86,238
Commercial mortgage-related securities								
FNMA / FHLMC	1	(601)	18,606	—	—	—	(601)	18,606
GNMA	35	(2,473)	105,680	—	—	—	(2,473)	105,680
Asset backed securities								
FFELP	6	(2,905)	72,610	9	(4,187)	88,655	(7,092)	161,264
SBA	—	—	—	7	(45)	2,456	(45)	2,456
Other debt securities	3	(71)	2,929	—	—	—	(71)	2,929
Total	536	$ (147,433)	$2,183,889	26	$ (28,791)	$ 322,556	$ (176,224)	$2,506,446
HTM investment securities								
U.S. Treasury securities	1	$ (44)	$ 955	—	$ —	$ —	$ (44)	$ 955
Obligations of state and political subdivisions (municipal securities)	717	(156,757)	1,127,009	9	(4,359)	11,242	(161,116)	1,138,251
Residential mortgage-related securities								
FNMA / FHLMC	81	(125,444)	872,561	—	—	—	(125,444)	872,561
GNMA	74	(1,637)	40,113	—	—	—	(1,637)	40,113
Private-label	18	(54,490)	333,841	—	—	—	(54,490)	333,841
Commercial mortgage-related securities								
FNMA / FHLMC	15	(119,046)	313,359	7	(12,804)	68,980	(131,851)	382,339
GNMA	33	(4,970)	339,810	—	—	—	(4,970)	339,810
Total	939	$ (462,387)	$3,027,647	16	$ (17,163)	$ 80,222	$ (479,551)	$3,107,869

For comparative purposes, the following represents gross unrealized losses and the related fair value of AFS and HTM securities, aggregated by investment category and length of time that individual securities have been in a continuous unrealized loss position, at December 31, 2021:

	Less than 12 months			12 months or more			Total	
($ in Thousands)	Number of Securities	Unrealized (Losses)	Fair Value	Number of Securities	Unrealized (Losses)	Fair Value	Unrealized (Losses)	Fair Value
AFS investment securities								
U.S. Treasury securities	7	$ (1,334)	$ 122,957	—	$ —	$ —	$ (1,334)	$ 122,957
Agency securities	1	(103)	14,897	—	—	—	(103)	14,897
Residential mortgage-related securities								
FNMA / FHLMC	74	(21,249)	2,172,837	—	—	—	(21,249)	2,172,837
Private-label	12	(2,335)	248,617	—	—	—	(2,335)	248,617
FNMA / FHLMC commercial mortgage-related securities	19	(9,302)	328,568	—	—	—	(9,302)	328,568
Asset backed securities								
FFELP	4	(256)	64,282	8	(867)	62,576	(1,123)	126,858
SBA	—	—	—	9	(54)	3,902	(54)	3,902
Other debt securities	3	(6)	2,994	—	—	—	(6)	2,994
Total	120	$ (34,586)	$2,955,152	17	$ (920)	$ 66,478	$ (35,506)	$3,021,630
HTM investment securities								
Obligations of state and political subdivisions (municipal securities)	49	$ (1,951)	$ 112,038	—	$ —	$ —	$ (1,951)	$ 112,038
Commercial mortgage-related securities								
FNMA/FHLMC	18	(6,272)	388,072	1	(387)	10,775	(6,659)	398,847
GNMA	5	(200)	33,468	—	—	—	(200)	33,468
Total	72	$ (8,422)	$ 533,577	1	$ (387)	$ 10,775	$ (8,809)	$ 544,352

The Corporation reviews the AFS investment securities portfolio on a quarterly basis to monitor its credit exposure. A determination as to whether a security's decline in fair value is the result of credit risk takes into consideration numerous factors and the relative significance of any single factor can vary by security. Some factors the Corporation may consider in this impairment analysis include the extent to which the security has been in an unrealized loss position, the change in security rating, financial condition and near-term prospects of the issuer, as well as the security and industry specific economic conditions.

Based on the Corporation's evaluation, management does not believe any unrealized losses at June 30, 2022 represent credit deterioration as these unrealized losses are primarily attributable to changes in interest rates and the current market conditions. The Corporation does not intend to sell nor does it believe that it will be required to sell the securities in an unrealized loss position before recovery of their amortized cost basis.

FHLB and Federal Reserve Bank stocks: The Corporation is required to maintain Federal Reserve Bank stock and FHLB stock as a member bank of both the Federal Reserve System and the FHLB, and in amounts as required by these institutions. These equity securities are "restricted" in that they can only be sold back to the respective institutions or another member institution at par. Therefore, they are less liquid than other marketable equity securities and their fair value is equal to amortized cost. The Corporation had FHLB stock of $151 million and $82 million at June 30, 2022 and December 31, 2021, respectively. The Corporation had Federal Reserve Bank stock of $87 million at both June 30, 2022 and December 31, 2021. Accrued interest receivable on FHLB stock totaled $1 million and approximately $975,000 at June 30, 2022 and December 31, 2021, respectively. There was no accrued interest receivable on Federal Reserve Bank stock at both June 30, 2022 and December 31, 2021. Accrued interest receivable on both FHLB stock and Federal Reserve Bank stock is included in interest receivable on the consolidated balance sheets.

Equity Securities

Equity securities with readily determinable fair values: The Corporation's portfolio of equity securities with readily determinable fair values is primarily comprised of CRA Qualified Investment mutual funds and other mutual funds. At June 30, 2022 and December 31, 2021, the Corporation had equity securities with readily determinable fair values of $6 million and $5 million, respectively.

Equity securities without readily determinable fair values: The Corporation's portfolio of equity securities without readily determinable fair values, which primarily consists of approximately 78,000 Visa Class B restricted shares, was carried at $14 million at both June 30, 2022 and December 31, 2021.

Note 7 Loans

The period end loan composition was as follows:

($ in Thousands)	Jun 30, 2022	Dec 31, 2021
PPP	$ 9,514	$ 66,070
Asset-based lending & equipment finance[(a)]	263,044	178,027
Commercial and industrial	8,984,127	8,208,289
Commercial real estate — owner occupied	928,152	971,326
Commercial and business lending	10,184,836	9,423,711
Commercial real estate — investor	4,790,241	4,384,569
Real estate construction	1,775,648	1,808,976
Commercial real estate lending	6,565,889	6,193,545
Total commercial	16,750,726	15,617,256
Residential mortgage	8,002,943	7,567,310
Auto finance	847,969	143,045
Home equity	592,843	595,615
Other consumer	300,217	301,723
Total consumer	9,743,972	8,607,693
Total loans	$ 26,494,698	$ 24,224,949

(a) Dec 31, 2021 does not include equipment finance.

Accrued interest receivable on loans totaled $68 million at June 30, 2022, and $55 million at December 31, 2021, and is included in interest receivable on the consolidated balance sheets. Interest accrued but not received for loans placed on nonaccrual is reversed against interest income. The amount of accrued interest reversed totaled approximately $44,000 and $139,000 for the three and six months ended June 30, 2022, respectively, and approximately $140,000 and $238,000 for the three and six months ended June 30, 2021, respectively.

The following table presents commercial and consumer loans by credit quality indicator by vintage year at June 30, 2022:

			Term Loans Amortized Cost Basis by Origination Year[a]						
($ in Thousands)	Rev Loans Converted to Term[a]	Rev Loans Amortized Cost Basis	YTD 2022	2021	2020	2019	2018	Prior	Total
PPP:[b]									
Risk rating:									
Pass	$ —	$ —	$ 49	$ 8,527	$ 891	$ —	$ —	$ —	$ 9,467
Potential Problem	—	—	47	—	—	—	—	—	47
PPP	$ —	$ —	$ 96	$ 8,527	$ 891	$ —	$ —	$ —	$ 9,514
Asset-based lending & equipment finance:									
Risk rating:									
Pass	$ —	$ 19,968	$ 77,441	$ 100,349	$ 44,012	$ 977	$ 192	$ 8	$ 242,947
Special Mention	—	—	—	—	285	—	—	—	285
Potential Problem	—	1,563	1,500	—	16,750	—	—	—	19,813
Asset-based lending & equipment finance	$ —	$ 21,531	$ 78,941	$ 100,349	$ 61,047	$ 977	$ 192	$ 8	$ 263,044
Commercial and industrial:									
Risk rating:									
Pass	$ —	$ 2,252,288	$1,499,191	$2,520,309	$ 695,696	$ 772,615	$ 541,349	$ 542,828	$ 8,824,277
Special Mention	—	16,663	1,500	5,242	17,308	—	—	33,509	74,222
Potential Problem	71	10,237	17,655	1,312	3,751	44,715	175	6,940	84,785
Nonaccrual	—	—	—	—	843	—	—	—	843
Commercial and industrial	$ 71	$ 2,279,187	$1,518,346	$2,526,863	$ 717,599	$ 817,331	$ 541,524	$ 583,277	$ 8,984,127
Commercial real estate - owner occupied:									
Risk rating:									
Pass	$ —	$ 6,344	$ 57,860	$ 251,874	$ 170,340	$ 173,189	$ 95,730	$ 126,926	$ 882,263
Special Mention	—	—	—	—	7,260	—	—	—	7,260
Potential Problem	—	211	898	8,779	3,752	9,073	5,282	10,634	38,628
Commercial real estate - owner occupied	$ —	$ 6,555	$ 58,757	$ 260,653	$ 181,352	$ 182,262	$ 101,012	$ 137,560	$ 928,152
Commercial and business lending:									
Risk rating:									
Pass	$ —	$ 2,278,600	$1,634,541	$2,881,059	$ 910,939	$ 946,782	$ 637,271	$ 669,762	$ 9,958,954
Special Mention	—	16,663	1,500	5,242	24,853	—	—	33,509	81,767
Potential Problem	71	12,010	20,100	10,091	24,253	53,788	5,457	17,574	143,273
Nonaccrual	—	—	—	—	843	—	—	—	843
Commercial and business lending	$ 71	$ 2,307,273	$1,656,141	$2,896,392	$ 960,888	$1,000,570	$ 642,728	$ 720,844	$10,184,836
Commercial real estate - investor:									
Risk rating:									
Pass	$ 38,623	$ 91,473	$1,069,896	$1,488,158	$ 731,756	$ 569,142	$ 274,865	$ 294,879	$ 4,520,168
Special Mention	—	—	—	69,497	—	20,906	—	212	90,615
Potential Problem	—	—	267	48,237	28,728	25,497	18,746	11,161	132,635
Nonaccrual	—	—	814	37,922	7,642	444	—	—	46,823
Commercial real estate - investor	$ 38,623	$ 91,473	$1,070,977	$1,643,814	$ 768,126	$ 615,989	$ 293,611	$ 306,252	$ 4,790,241
Real estate construction:									
Risk rating:									
Pass	$ —	$ 27,288	$ 263,216	$ 962,486	$ 375,197	$ 65,237	$ 23,355	$ 11,039	$ 1,727,819
Special Mention	—	—	—	941	11,929	34,274	—	—	47,144
Potential Problem	—	—	—	82	—	—	—	—	82
Nonaccrual	—	—	—	—	—	—	—	604	604
Real estate construction	$ —	$ 27,288	$ 263,216	$ 963,509	$ 387,126	$ 99,511	$ 23,355	$ 11,643	$ 1,775,648

($ in Thousands)	Rev Loans Converted to Term[a]	Rev Loans Amortized Cost Basis	Term Loans Amortized Cost Basis by Origination Year[a] YTD 2022	2021	2020	2019	2018	Prior	Total
Commercial real estate lending:									
Risk rating:									
Pass	$ 38,623	$ 118,762	$1,333,112	$2,450,644	$1,106,953	$ 634,379	$ 298,220	$ 305,917	$ 6,247,987
Special Mention	—	—	—	70,438	11,929	55,180	—	212	137,758
Potential Problem	—	—	267	48,318	28,728	25,497	18,746	11,161	132,717
Nonaccrual	—	—	814	37,922	7,642	444	—	604	47,427
Commercial real estate lending	$ 38,623	$ 118,762	$1,334,193	$2,607,322	$1,155,252	$ 715,500	$ 316,966	$ 317,895	$ 6,565,889
Total commercial:									
Risk rating:									
Pass	$ 38,623	$ 2,397,362	$2,967,653	$5,331,703	$2,017,892	$1,581,161	$ 935,492	$ 975,679	$16,206,941
Special Mention	—	16,663	1,500	75,680	36,782	55,180	—	33,721	219,525
Potential Problem	71	12,010	20,367	58,409	52,981	79,285	24,203	28,735	275,990
Nonaccrual	—	—	814	37,922	8,485	444	—	604	48,270
Total commercial	$ 38,694	$ 2,426,035	$2,990,334	$5,503,714	$2,116,140	$1,716,070	$ 959,695	$1,038,739	$16,750,726
Residential mortgage:									
Risk rating:									
Pass	$ —	$ —	$ 825,055	$1,959,667	$1,789,114	$ 865,412	$ 389,154	$2,118,258	$ 7,946,661
Special Mention	—	—	—	—	99	—	—	46	145
Potential Problem	—	—	330	462	96	754	633	1,022	3,297
Nonaccrual	—	—	3,839	1,925	3,497	3,928	6,295	33,355	52,840
Residential mortgage	$ —	$ —	$ 829,224	$1,962,054	$1,792,807	$ 870,095	$ 396,082	$2,152,682	$ 8,002,943
Auto finance:									
Risk rating:									
Pass	$ —	$ —	$ 719,132	$ 125,195	$ 476	$ 1,904	$ 760	$ 179	$ 847,646
Special Mention	—	—	130	140	—	—	—	—	271
Nonaccrual	—	—	—	21	—	21	11	—	53
Auto finance	$ —	$ —	$ 719,263	$ 125,356	$ 476	$ 1,925	$ 771	$ 179	$ 847,969
Home equity:									
Risk rating:									
Pass	$ 5,461	$ 493,282	$ 9,466	$ 3,966	$ 1,675	$ 6,664	$ 7,840	$ 62,133	$ 585,026
Special Mention	109	65	—	—	33	26	39	366	529
Potential Problem	—	—	—	—	—	35	7	146	188
Nonaccrual	759	8	—	15	68	165	346	6,497	7,100
Home equity	$ 6,328	$ 493,356	$ 9,466	$ 3,981	$ 1,776	$ 6,890	$ 8,232	$ 69,143	$ 592,843
Other consumer:									
Risk rating:									
Pass	$ 111	$ 190,483	$ 4,065	$ 6,704	$ 3,204	$ 1,786	$ 307	$ 93,134	$ 299,685
Special Mention	1	430	—	18	—	—	—	1	449
Nonaccrual	15	14	—	—	29	9	5	27	83
Other consumer	$ 127	$ 190,927	$ 4,065	$ 6,723	$ 3,233	$ 1,795	$ 312	$ 93,162	$ 300,217
Total consumer:									
Risk rating:									
Pass	$ 5,572	$ 683,766	$1,557,718	$2,095,532	$1,794,469	$ 875,766	$ 398,061	$2,273,705	$ 9,679,017
Special Mention	109	495	130	159	131	26	39	413	1,394
Potential Problem	—	—	330	462	96	789	640	1,168	3,486
Nonaccrual	774	22	3,839	1,961	3,594	4,123	6,657	39,880	60,075
Total consumer	$ 6,455	$ 684,283	$1,562,017	$2,098,113	$1,798,292	$ 880,705	$ 405,397	$2,315,166	$ 9,743,972
Total loans:									
Risk rating:									
Pass	$ 44,195	$ 3,081,128	$4,525,371	$7,427,234	$3,812,361	$2,456,927	$1,333,552	$3,249,384	$25,885,958
Special Mention	109	17,158	1,630	75,838	36,913	55,206	39	34,134	220,919
Potential Problem	71	12,010	20,697	58,871	53,077	80,074	24,843	29,903	279,475
Nonaccrual	774	22	4,653	39,883	12,079	4,567	6,657	40,484	108,345
Total loans	$ 45,149	$ 3,110,318	$4,552,351	$7,601,827	$3,914,431	$2,596,775	$1,365,091	$3,353,905	$26,494,698

(a) Revolving loans converted to term loans are also reported in their year of origination.

(b) The Corporation's policy is to assign risk ratings at the borrower level. PPP loans are 100% guaranteed by the SBA and therefore the Corporation considers these loans to have a risk profile similar to pass rated loans.

The following table presents commercial and consumer loans by credit quality indicator by vintage year at December 31, 2021:

($ in Thousands)	Rev Loans Converted to Term[(a)]	Rev Loans Amortized Cost Basis	Term Loans Amortized Cost Basis by Origination Year[(a)] 2021	2020	2019	2018	2017	Prior	Total
PPP:[(b)]									
Risk rating:									
Pass	$ —	$ —	$ 44,921	$ 18,610	$ —	$ —	$ —	$ —	$ 63,531
Special Mention	—	—	212	281	—	—	—	—	493
Potential Problem	—	—	2,000	—	—	—	—	—	2,000
Nonaccrual	—	—	—	46	—	—	—	—	46
PPP	$ —	$ —	$ 47,134	$ 18,936	$ —	$ —	$ —	$ —	$ 66,070
Commercial and industrial:[(c)]									
Risk rating:									
Pass	$ 2,084	$ 2,371,605	$2,631,753	$ 852,758	$ 986,300	$ 710,491	$ 177,568	$ 493,876	$ 8,224,351
Special Mention	—	7,068	5,900	1,695	—	—	—	2,811	17,474
Potential Problem	2,706	26,387	23,415	19,960	46,296	20,924	104	1,172	138,258
Nonaccrual	76	—	5,996	161	52	24	—	—	6,233
Commercial and industrial	$ 4,867	$ 2,405,059	$2,667,064	$ 874,575	$1,032,647	$ 731,439	$ 177,671	$ 497,860	$ 8,386,316
Commercial real estate - owner occupied:									
Risk rating:									
Pass	$ 10,092	$ 30,869	$ 261,418	$ 178,424	$ 187,073	$ 110,169	$ 54,538	$ 117,011	$ 939,503
Special Mention	—	226	—	4,628	—	—	—	245	5,100
Potential Problem	—	526	5,953	4,721	10,047	727	2,204	2,546	26,723
Commercial real estate - owner occupied	$ 10,092	$ 31,621	$ 267,371	$ 187,773	$ 197,120	$ 110,896	$ 56,742	$ 119,802	$ 971,326
Commercial and business lending:									
Risk rating:									
Pass	$ 12,176	$ 2,402,474	$2,938,092	$1,049,792	$1,173,373	$ 820,660	$ 232,106	$ 610,887	$ 9,227,385
Special Mention	—	7,294	6,112	6,604	—	—	—	3,056	23,066
Potential Problem	2,706	26,913	31,368	24,681	56,343	21,651	2,307	3,718	166,981
Nonaccrual	76	—	5,996	207	52	24	—	—	6,279
Commercial and business lending	$ 14,958	$ 2,436,680	$2,981,569	$1,081,284	$1,229,767	$ 842,335	$ 234,414	$ 617,662	$ 9,423,711
Commercial real estate - investor:									
Risk rating:									
Pass	$ 37,430	$ 105,521	$1,650,936	$ 685,423	$ 867,606	$ 414,079	$ 139,320	$ 230,452	$ 4,093,337
Special Mention	—	—	57,163	27,384	33,016	72	—	6,781	124,416
Potential Problem	—	—	21,309	9,860	22,243	34,591	3,564	14,573	106,138
Nonaccrual	—	—	45,502	8,158	6,820	—	—	197	60,677
Commercial real estate - investor	$ 37,430	$ 105,521	$1,774,910	$ 730,825	$ 929,685	$ 448,741	$ 142,883	$ 252,003	$ 4,384,569
Real estate construction:									
Risk rating:									
Pass	$ —	$ 31,773	$ 843,664	$ 614,469	$ 204,337	$ 48,647	$ 2,229	$ 12,212	$ 1,757,331
Special Mention	—	—	2,203	11,929	—	15,885	41	2	30,060
Potential Problem	—	—	37	120	21,251	—	—	—	21,408
Nonaccrual	—	—	—	—	—	—	—	177	177
Real estate construction	$ —	$ 31,773	$ 845,903	$ 626,518	$ 225,588	$ 64,532	$ 2,270	$ 12,392	$ 1,808,976
Commercial real estate lending:									
Risk rating:									
Pass	$ 37,430	$ 137,294	$2,494,600	$1,299,893	$1,071,943	$ 462,726	$ 141,549	$ 242,664	$ 5,850,668
Special Mention	—	—	59,366	39,313	33,016	15,957	41	6,784	154,476
Potential Problem	—	—	21,345	9,980	43,494	34,591	3,564	14,573	127,546
Nonaccrual	—	—	45,502	8,158	6,820	—	—	374	60,855
Commercial real estate lending	$ 37,430	$ 137,294	$2,620,814	$1,357,343	$1,155,273	$ 513,273	$ 145,153	$ 264,395	$ 6,193,545

($ in Thousands)	Rev Loans Converted to Term[a]	Rev Loans Amortized Cost Basis	Term Loans Amortized Cost Basis by Origination Year[a] 2021	2020	2019	2018	2017	Prior	Total
Total commercial:									
Risk rating:									
Pass	$ 49,606	$ 2,539,768	$5,432,693	$2,349,685	$2,245,316	$1,283,386	$ 373,655	$ 853,551	$15,078,053
Special Mention	—	7,294	65,478	45,917	33,016	15,957	41	9,840	177,543
Potential Problem	2,706	26,913	52,713	34,660	99,837	56,241	5,871	18,291	294,527
Nonaccrual	76	—	51,498	8,365	6,872	24	—	374	67,134
Total commercial	$ 52,388	$ 2,573,974	$5,602,382	$2,438,627	$2,385,040	$1,355,608	$ 379,567	$ 882,057	$15,617,256
Residential mortgage:									
Risk rating:									
Pass	$ —	$ —	$1,771,447	$1,945,029	$ 974,188	$ 428,459	$ 673,447	$1,716,419	$ 7,508,989
Special Mention	—	—	—	—	—	285	—	461	746
Potential Problem	—	—	475	332	404	265	81	658	2,214
Nonaccrual	—	—	1,993	2,911	4,479	6,224	6,019	33,734	55,362
Residential mortgage	$ —	$ —	$1,773,915	$1,948,272	$ 979,071	$ 435,233	$ 679,547	$1,751,272	$ 7,567,310
Auto finance:									
Risk rating:									
Pass	$ —	$ —	$ 137,952	$ 707	$ 2,675	$ 1,200	$ 352	$ 107	$ 142,993
Nonaccrual	—	—	—	—	36	15	—	—	52
Auto finance	$ —	$ —	$ 137,952	$ 707	$ 2,711	$ 1,216	$ 352	$ 107	$ 143,045
Home equity:									
Risk rating:									
Pass	$ 6,728	$ 498,970	$ 1,216	$ 1,401	$ 7,640	$ 8,742	$ 7,660	$ 61,251	$ 586,880
Special Mention	133	100	—	102	4	—	—	638	844
Potential Problem	6	—	6	—	—	13	—	146	165
Nonaccrual	925	35	9	92	211	305	302	6,772	7,726
Home equity	$ 7,792	$ 499,104	$ 1,232	$ 1,595	$ 7,856	$ 9,059	$ 7,962	$ 68,807	$ 595,615
Other consumer:									
Risk rating:									
Pass	$ 443	$ 180,312	$ 9,297	$ 4,987	$ 2,884	$ 371	$ 265	$ 103,075	$ 301,191
Special Mention	7	351	—	4	—	—	—	7	363
Nonaccrual	6	120	—	14	7	—	19	11	170
Other consumer	$ 456	$ 180,783	$ 9,297	$ 5,005	$ 2,890	$ 371	$ 284	$ 103,093	$ 301,723
Total consumer:									
Risk rating:									
Pass	$ 7,171	$ 679,353	$1,919,912	$1,952,124	$ 987,387	$ 438,771	$ 681,725	$1,880,781	$ 8,540,053
Special Mention	140	451	—	106	4	285	—	1,106	1,952
Potential Problem	6	—	481	332	404	277	81	804	2,379
Nonaccrual	931	154	2,003	3,017	4,733	6,545	6,340	40,517	63,309
Total consumer	$ 8,248	$ 679,959	$1,922,396	$1,955,579	$ 992,528	$ 445,878	$ 688,145	$1,923,208	$ 8,607,693
Total loans:									
Risk rating:									
Pass	$ 56,777	$ 3,219,121	$7,352,605	$4,301,809	$3,232,703	$1,722,157	$1,055,380	$2,734,332	$23,618,106
Special Mention	140	7,745	65,478	46,023	33,021	16,241	41	10,946	179,495
Potential Problem	2,713	26,913	53,194	34,992	100,240	56,519	5,952	19,095	296,905
Nonaccrual	1,006	154	53,501	11,382	11,605	6,569	6,340	40,891	130,443
Total loans	$ 60,636	$ 3,253,933	$7,524,778	$4,394,206	$3,377,569	$1,801,486	$1,067,713	$2,805,265	$24,224,949

(a) Revolving loans converted to term loans are also reported in their year of origination.
(b) The Corporation's policy is to assign risk ratings at the borrower level. PPP loans are 100% guaranteed by the SBA and therefore the Corporation considers these loans to have a risk profile similar to pass rated loans.
(c) Includes asset-based lending & equipment finance.

Factors that are important to managing overall credit quality are sound loan underwriting and administration, systematic monitoring of existing loans and commitments, effective loan review on an ongoing basis, early identification of potential problems, and appropriate policies for ACLL, nonaccrual loans, and charge offs.

For commercial loans, management has determined the pass credit quality indicator to include credits exhibiting acceptable financial statements, cash flow, and leverage. If any risk exists, it is mitigated by the loan structure, collateral, monitoring, or control. For consumer loans, performing loans include credits performing in accordance with the original contractual terms.

Loans are considered past due if the required principal and interest payments have not been received as of the date such payments were due. Special mention credits have potential weaknesses that warrant specific attention from management. If left uncorrected, these potential weaknesses may result in deterioration of the repayment prospects for the credit. Accruing TDRs could be pass or special mention, depending on the risk rating on the loan. Potential problem loans are considered inadequately protected by the current net worth and paying capacity of the obligor or the collateral pledged. These loans generally have a well-defined weakness, or weaknesses, which may jeopardize liquidation of the debt, and are characterized by the distinct possibility the Corporation will sustain some loss if the deficiencies are not corrected. Management has determined commercial loan relationships in nonaccrual status, and commercial and consumer loan relationships with their terms restructured in a TDR, meet the criteria to be individually evaluated. Commercial loans classified as special mention, potential problem, and nonaccrual are reviewed at a minimum on a quarterly basis, while pass credits, which are performing rated credits, are generally reviewed on an annual basis or more frequently if the loan renewal is less than one year or if otherwise warranted.

The following table presents loans by past due status at June 30, 2022:

	Accruing					
($ in Thousands)	Current	30-59 Days Past Due	60-89 Days Past Due	90+ Days Past Due	Nonaccrual[a][b]	Total
PPP	$ 8,039	$ 1,361	$ 113	$ —	$ —	$ 9,514
Asset-based lending & equipment finance	263,044	—	—	—	—	263,044
Commercial and industrial	8,982,984	106	61	133	843	8,984,127
Commercial real estate - owner occupied	928,152	—	—	—	—	928,152
Commercial and business lending	10,182,219	1,467	174	133	843	10,184,836
Commercial real estate - investor	4,737,934	5,484	—	—	46,823	4,790,241
Real estate construction	1,775,044	—	—	—	604	1,775,648
Commercial real estate lending	6,512,978	5,484	—	—	47,427	6,565,889
Total commercial	16,695,197	6,952	174	133	48,270	16,750,726
Residential mortgage	7,944,365	5,213	102	423	52,840	8,002,943
Auto finance	845,010	2,635	271	—	53	847,969
Home equity	582,782	2,448	514	—	7,100	592,843
Other consumer	297,770	807	557	999	83	300,217
Total consumer	9,669,928	11,104	1,444	1,422	60,075	9,743,972
Total loans	$ 26,365,125	$ 18,055	$ 1,618	$ 1,555	$ 108,345	$ 26,494,698

(a) Of the total nonaccrual loans, $65 million, or 60%, were current with respect to payment at June 30, 2022.
(b) No interest income was recognized on nonaccrual loans for the three and six months ended June 30, 2022. In addition, there were $15 million of nonaccrual loans for which there was no related ACLL at June 30, 2022.

The following table presents loans by past due status at December 31, 2021:

($ in Thousands)	Current	Accruing: 30-59 Days Past Due	Accruing: 60-89 Days Past Due	Accruing: 90+ Days Past Due	Nonaccrual[(a)(b)]	Total
PPP	$ 65,941	$ 40	$ 43	$ —	$ 46	$ 66,070
Asset-based lending	178,027	—	—	—	—	178,027
Commercial and industrial[(c)]	8,201,272	579	54	151	6,233	8,208,289
Commercial real estate - owner occupied	971,163	163	—	—	—	971,326
Commercial and business lending	9,416,403	781	97	151	6,279	9,423,711
Commercial real estate - investor	4,323,276	142	474	—	60,677	4,384,569
Real estate construction	1,807,178	1,618	2	—	177	1,808,976
Commercial real estate lending	6,130,454	1,759	477	—	60,855	6,193,545
Total commercial	15,546,857	2,541	573	151	67,134	15,617,256
Residential mortgage	7,505,654	5,500	669	126	55,362	7,567,310
Auto finance	142,982	11	—	—	52	143,045
Home equity	584,177	2,867	844	—	7,726	595,615
Other consumer	298,261	1,835	472	986	170	301,723
Total consumer	8,531,074	10,213	1,985	1,111	63,309	8,607,693
Total loans	$ 24,077,931	$ 12,754	$ 2,558	$ 1,263	$ 130,443	$ 24,224,949

(a) Of the total nonaccrual loans, $84 million, or 65%, were current with respect to payment at December 31, 2021.
(b) No interest income was recognized on nonaccrual loans for the year ended December 31, 2021. In addition, there were $9 million of nonaccrual loans for which there was no related ACLL at December 31, 2021.
(c) Includes equipment finance.

Troubled Debt Restructurings

Loans are considered restructured loans if concessions have been granted to borrowers that are experiencing financial difficulty.

The following table presents nonaccrual and performing restructured loans by loan portfolio:

($ in Thousands)	Jun 30, 2022: Performing Restructured Loans	Jun 30, 2022: Nonaccrual Restructured Loans[(a)]	Dec 31, 2021: Performing Restructured Loans	Dec 31, 2021: Nonaccrual Restructured Loans[(a)]
Commercial and industrial	$ 13,882	$ —	$ 8,687	$ —
Commercial real estate — owner occupied	421	—	967	—
Commercial real estate — investor	943	4,266	12,866	3,093
Real estate construction	179	43	242	45
Residential mortgage	15,829	16,854	16,316	13,483
Home equity	2,246	1,009	2,648	806
Other consumer	753	—	803	—
Total restructured loans	$ 34,253	$ 22,172	$ 42,530	$ 17,426

(a) Nonaccrual restructured loans have been included within nonaccrual loans.

The Corporation had a recorded investment of $9 million in loans modified as TDRs during the six months ended June 30, 2022, of which $1 million were in accrual status, included in pass or special mention based on their risk rating within the credit quality tables, and $8 million were in nonaccrual within the credit quality tables, pending a sustained period of repayment. The following table provides the number of loans modified in a TDR by loan portfolio, the recorded investment, and unpaid principal balance for the six months ended June 30, 2022 and 2021:

($ in Thousands)	Six Months Ended June 30, 2022: Number of Loans	Recorded Investment[(a)]	Unpaid Principal Balance[(b)]	Six Months Ended June 30, 2021: Number of Loans	Recorded Investment[(a)]	Unpaid Principal Balance[(b)]
Commercial and industrial	2	$ 275	$ 275	2	$ 128	$ 129
Commercial real estate — investor	1	$ 553	$ 573	4	$ 1,690	$ 1,690
Residential mortgage	35	8,149	8,315	37	7,424	7,450
Home equity	8	291	312	4	566	603
Total loans modified	46	$ 9,267	$ 9,474	47	$ 9,808	$ 9,871

(a) Represents post-modification outstanding recorded investment.
(b) Represents pre-modification outstanding recorded investment.

Restructured loan modifications may include payment schedule modifications, interest rate concessions, maturity date extensions, modification of note structure (A/B Note), non-reaffirmed Chapter 7 bankruptcies, principal reduction, or some combination of these concessions. During the six months ended June 30, 2022, restructured loan modifications of commercial loans primarily included maturity date extensions and payment schedule modifications. Restructured loan modifications of consumer loans primarily included maturity date extensions, interest rate concessions, non-reaffirmed Chapter 7 bankruptcies, or a combination of these concessions for the six months ended June 30, 2022.

The following table provides the number of loans modified in a TDR during the previous twelve months which subsequently defaulted during the six months ended June 30, 2022 and 2021, and the recorded investment in these restructured loans as of June 30, 2022 and 2021:

	Six Months Ended June 30, 2022		Six Months Ended June 30, 2021	
($ in Thousands)	Number of Loans	Recorded Investment	Number of Loans	Recorded Investment
Residential mortgage	4	$ 1,178	1	$ 97

All loans modified in a TDR are individually evaluated for impairment. The nature and extent of the impairment of restructured loans, including those which have experienced a subsequent payment default, are considered in the determination of an appropriate level of the ACLL.

The Corporation analyzes loans for classification as a probable TDR. This analysis includes identifying customers that are showing possible liquidity issues in the near term without reasonable access to alternative sources of capital. At June 30, 2022, the Corporation had no loans meeting this classification compared to $7 million at December 31, 2021.

Allowance for Credit Losses on Loans

The ACLL is comprised of the allowance for loan losses and the allowance for unfunded commitments. The level of the ACLL represents management’s estimate of an amount appropriate to provide for expected lifetime credit losses in the loan portfolio at the balance sheet date. The expected lifetime credit losses are the product of multiplying the Corporation's estimates of probability of default, loss given default, and the individual loan level exposure at default on an undiscounted basis. A main factor in the determination of the ACLL is the economic forecast. The Corporation utilized Moody's baseline forecast, updated during May 2022 and reviewed against the June 2022 forecast for material updates, in the allowance model. The forecast is applied over a 2 year reasonable and supportable period with straight-line reversion to the historical losses over the second year of the period. The allowance for unfunded commitments is maintained at a level believed by management to be sufficient to absorb expected lifetime losses related to unfunded credit facilities (including unfunded loan commitments and letters of credit). See Note 12 for additional information on the change in the allowance for unfunded commitments.

The following table presents a summary of the changes in the ACLL by portfolio segment for the six months ended June 30, 2022:

($ in Thousands)	Dec 31, 2021	Charge offs	Recoveries	Net Charge offs	Provision for credit losses	Jun 30, 2022	ACLL / Loans
Allowance for loan losses							
PPP	$ 51	$ —	$ —	$ —	$ (45)	$ 6	
Asset-based lending & equipment finance	4,182	—	—	—	450	4,632	
Commercial and industrial	85,624	(1,895)	3,305	1,410	5,018	92,052	
Commercial real estate — owner occupied	11,473	—	7	7	(1,074)	10,406	
Commercial and business lending	101,330	(1,895)	3,312	1,417	4,349	107,096	
Commercial real estate — investor	72,803	—	—	—	(8,412)	64,391	
Real estate construction	37,643	—	33	33	(1,537)	36,139	
Commercial real estate lending	110,446	—	33	33	(9,949)	100,531	
Total commercial	211,776	(1,895)	3,346	1,450	(5,600)	207,626	
Residential mortgage	40,787	(138)	646	508	(2,444)	38,851	
Auto finance	1,999	(60)	49	(10)	8,440	10,428	
Home equity	14,011	(195)	971	776	(1,496)	13,291	
Other consumer	11,441	(1,531)	564	(967)	100	10,574	
Total consumer	68,239	(1,924)	2,230	306	4,600	73,145	
Total loans	$ 280,015	$ (3,819)	$ 5,576	$ 1,757	$ (1,000)	$ 280,771	
Allowance for unfunded commitments							
Asset-based lending & equipment finance	$ 857	$ —	$ —	$ —	$ (124)	$ 733	
Commercial and industrial	17,601	—	—	—	(2,949)	14,652	
Commercial real estate — owner occupied	208	—	—	—	(94)	114	
Commercial and business lending	18,667	—	—	—	(3,167)	15,500	
Commercial real estate — investor	936	—	—	—	(287)	649	
Real estate construction	15,586	—	—	—	901	16,487	
Commercial real estate lending	16,522	—	—	—	614	17,136	
Total commercial	35,189	—	—	—	(2,553)	32,636	
Home equity	2,592	—	—	—	(150)	2,441	
Other consumer	1,995	—	—	—	(296)	1,698	
Total consumer	4,587	—	—	—	(447)	4,140	
Total loans	$ 39,776	$ —	$ —	$ —	$ (3,000)	$ 36,776	
Allowance for credit losses on loans							
PPP	$ 51	$ —	$ —	$ —	$ (45)	$ 6	0.06 %
Asset-based lending & equipment finance	5,040	—	—	—	325	5,365	2.04 %
Commercial and industrial	103,225	(1,895)	3,305	1,410	2,069	106,704	1.19 %
Commercial real estate — owner occupied	11,681	—	7	7	(1,167)	10,520	1.13 %
Commercial and business lending	119,997	(1,895)	3,312	1,417	1,182	122,595	1.20 %
Commercial real estate — investor	73,739	—	—	—	(8,699)	65,040	1.36 %
Real estate construction	53,229	—	33	33	(636)	52,627	2.96 %
Commercial real estate lending	126,968	—	33	33	(9,335)	117,667	1.79 %
Total commercial	246,965	(1,895)	3,346	1,450	(8,153)	240,262	1.43 %
Residential mortgage	40,787	(138)	646	508	(2,444)	38,851	0.49 %
Auto finance	1,999	(60)	49	(10)	8,440	10,428	1.23 %
Home equity	16,603	(195)	971	776	(1,647)	15,732	2.65 %
Other consumer	13,436	(1,531)	564	(967)	(196)	12,273	4.09 %
Total consumer	72,825	(1,924)	2,230	306	4,153	77,284	0.79 %
Total loans	$ 319,791	$ (3,819)	$ 5,576	$ 1,757	$ (4,000)	$ 317,547	1.20 %

Table of Contents

The following table presents a summary of the changes in the ACLL by portfolio segment for the year ended December 31, 2021:

($ in Thousands)	Dec 31, 2020	Charge offs	Recoveries	Net Charge offs	Provision for credit losses	Dec 31, 2021	ACLL / Loans
Allowance for loan losses							
PPP	$ 531	$ —	$ —	$ —	$ (480)	$ 51	
Asset-based lending	2,077	—	412	412	1,693	4,182	
Commercial and industrial[(a)]	140,716	(21,564)	8,152	(13,412)	(41,680)	85,624	
Commercial real estate — owner occupied	11,274	—	120	120	80	11,473	
Commercial and business lending	154,598	(21,564)	8,684	(12,880)	(40,388)	101,330	
Commercial real estate — investor	93,435	(14,346)	3,162	(11,184)	(9,448)	72,803	
Real estate construction	59,193	(5)	126	121	(21,672)	37,643	
Commercial real estate lending	152,629	(14,351)	3,288	(11,063)	(31,120)	110,446	
Total commercial	307,226	(35,915)	11,972	(23,943)	(71,508)	211,776	
Residential mortgage	42,996	(880)	841	(38)	(2,170)	40,787	
Auto finance	174	(22)	31	9	1,816	1,999	
Home equity	18,849	(668)	2,854	2,186	(7,024)	14,011	
Other consumer	14,456	(3,168)	1,267	(1,901)	(1,113)	11,441	
Total consumer	76,475	(4,738)	4,993	256	(8,492)	68,239	
Total loans	$ 383,702	$ (40,652)	$ 16,965	$ (23,687)	$ (80,000)	$ 280,015	
Allowance for unfunded commitments							
Asset-based lending	$ 901	$ —	$ —	$ —	$ (43)	$ 857	
Commercial and industrial[(a)]	21,411	—	—	—	(3,809)	17,601	
Commercial real estate — owner occupied	266	—	—	—	(58)	208	
Commercial and business lending	22,577	—	—	—	(3,911)	18,667	
Commercial real estate — investor	636	—	—	—	300	936	
Real estate construction	18,887	—	—	—	(3,301)	15,586	
Commercial real estate lending	19,523	—	—	—	(3,001)	16,522	
Total commercial	42,101	—	—	—	(6,912)	35,189	
Home equity	3,118	—	—	—	(526)	2,592	
Other consumer	2,557	—	—	—	(563)	1,995	
Total consumer	5,675	—	—	—	(1,088)	4,587	
Total loans	$ 47,776	$ —	$ —	$ —	$ (8,000)	$ 39,776	
Allowance for credit losses on loans							
PPP	$ 531	$ —	$ —	$ —	$ (480)	$ 51	0.08 %
Asset-based lending	2,978	—	412	412	1,649	5,040	2.83 %
Commercial and industrial[(a)]	162,126	(21,564)	8,152	(13,412)	(45,490)	103,225	1.26 %
Commercial real estate — owner occupied	11,539	—	120	120	22	11,681	1.20 %
Commercial and business lending	177,175	(21,564)	8,684	(12,880)	(44,299)	119,997	1.27 %
Commercial real estate — investor	94,071	(14,346)	3,162	(11,184)	(9,148)	73,739	1.68 %
Real estate construction	78,080	(5)	126	121	(24,972)	53,229	2.94 %
Commercial real estate lending	172,152	(14,351)	3,288	(11,063)	(34,121)	126,968	2.05 %
Total commercial	349,327	(35,915)	11,972	(23,943)	(78,419)	246,965	1.58 %
Residential mortgage	42,996	(880)	841	(38)	(2,170)	40,787	0.54 %
Auto finance	174	(22)	31	9	1,816	1,999	1.40 %
Home equity	21,967	(668)	2,854	2,186	(7,550)	16,603	2.79 %
Other consumer	17,013	(3,168)	1,267	(1,901)	(1,676)	13,436	4.45 %
Total consumer	82,150	(4,738)	4,993	256	(9,581)	72,825	0.85 %
Total loans	$ 431,478	$ (40,652)	$ 16,965	$ (23,687)	$ (88,000)	$ 319,791	1.32 %

(a) Includes equipment finance.

Note 8 Goodwill and Other Intangible Assets

Goodwill

Goodwill is not amortized but is instead subject to impairment tests on at least an annual basis, and more frequently if an event occurs or circumstances change that would more likely than not reduce the fair value of a reporting unit below its carrying amount.

The Corporation conducted its most recent annual impairment testing in May 2022, utilizing a qualitative assessment. Factors that management considered in this assessment included macroeconomic conditions, industry and market considerations, overall financial performance of the Corporation and each reporting unit (both current and projected), changes in management strategy, and changes in the composition or carrying amount of net assets. In addition, management considered the changes in both the Corporation's common stock price and in the overall bank common stock index (based on the S&P 400 Regional Bank Sub-Industry Index), as well as the Corporation's earnings per common share trend over the past year. Based on these assessments, management concluded that it is more likely than not that the estimated fair value exceeded the carrying value (including goodwill) for each reporting unit. Therefore, a step one quantitative analysis was not required. There have been no events since the May 2022 impairment test that have changed the Corporation's impairment assessment conclusion. There were no impairment charges recorded in 2021 or the first six months of 2022.

The Corporation had goodwill of $1.1 billion at both June 30, 2022 and December 31, 2021.

Other Intangible Assets

The Corporation has CDIs and historically had other intangible assets, both of which are amortized. For CDIs and other intangibles, changes in the gross carrying amount, accumulated amortization, and net book value were as follows:

($ in Thousands)	Six Months Ended June 30, 2022		Year Ended Dec 31, 2021	
Core deposit intangibles				
Gross carrying amount at the beginning of period	$	88,109	$	88,109
Accumulated amortization		(34,422)		(30,016)
Net book value	$	53,687	$	58,093
Amortization during the period	$	4,405	$	8,811
Other intangibles				
Gross carrying amount at the beginning of period	$	—	$	2,000
Reductions due to sale		—		(1,317)
Accumulated amortization		—		(683)
Net book value	$	—	$	—
Amortization during the period	$	—	$	33

Mortgage Servicing Rights

The Corporation sells residential mortgage loans in the secondary market and typically retains the right to service the loans sold. On January 1, 2022, the Corporation made the irrevocable election to account for its MSRs under the fair value measurement method, with any change in fair value being recognized through earnings in mortgage banking, net on the consolidated statements of income. MSRs are not traded in active markets. As a result, a cash flow model is used to determine fair value. Key assumptions and estimates, projected prepayment speeds, assumed servicing costs, ancillary income, costs to service delinquent loans, costs of foreclosure, and discount rates with option-adjusted spreads, are used in measuring the fair value of the MSRs asset. These assumptions are considered significant unobservable inputs. See Note 12 for a discussion of the recourse provisions on sold residential mortgage loans. See Note 13 which further discusses fair value measurement relative to the MSRs asset.

A summary of changes in the balance of the MSRs asset under the fair value measurement method for the six months ended June 30, 2022 is as follows:

($ in Thousands)	Six Months Ended June 30, 2022	
Mortgage servicing rights		
Mortgage servicing rights at beginning of period	$	54,862
Cumulative effect of accounting methodology change		2,296
Balance at beginning of period, adjusted	$	57,158
Additions		5,231
Paydowns		(5,220)
Valuation:		
Change in fair value model assumptions		6,034
Changes in fair value of asset		13,366
Mortgage servicing rights at end of period	$	76,570
Portfolio of residential mortgage loans serviced for others (“servicing portfolio”)	$	6,910,382
Mortgage servicing rights to servicing portfolio		1.11 %

Prior to January 1, 2022, the Corporation accounted for its MSRs under the amortization methodology. Under this methodology the Corporation evaluated its MSRs asset for impairment at minimum on a quarterly basis. Impairment was assessed based on fair value at each reporting date using estimated prepayment speeds of the underlying mortgage loans serviced and stratifications based on the risk characteristics of the underlying loans (predominantly loan type and note interest rate). As mortgage interest rates fell, prepayment speeds were usually faster and the value of the MSRs asset generally decreased, requiring additional valuation reserve. Conversely, as mortgage interest rates rose, prepayment speeds were usually slower and the value of the MSRs asset generally increased, requiring less valuation reserve. A valuation allowance was established, through a charge to earnings, to the extent the amortized cost of the MSRs exceeded the estimated fair value by stratification. An other-than-temporary impairment (i.e., recoverability was considered remote when considering interest rates and loan pay off activity) was recognized as a write-down of the MSRs asset and the related valuation allowance (to the extent a valuation allowance was available) and then against earnings. A direct write-down permanently reduced the carrying value of the MSRs asset and valuation allowance, precluding subsequent recoveries.

A summary of changes in the balance of the MSRs asset and the MSRs valuation allowance under the amortization method for the year ended December 31, 2021 is as follows:

($ in Thousands)		Year Ended Dec 31, 2021
Mortgage servicing rights		
Mortgage servicing rights at beginning of period	$	59,967
Additions		16,151
Amortization		(19,436)
Mortgage servicing rights at end of period	$	56,682
Valuation allowance at beginning of period	$	(18,006)
Recoveries, net		16,186
Valuation allowance at end of period	$	(1,820)
Mortgage servicing rights, net	$	54,862
Fair value of mortgage servicing rights	$	57,259
Portfolio of residential mortgage loans serviced for others (“servicing portfolio”)	$	6,994,834
Mortgage servicing rights, net to servicing portfolio		0.78 %
Mortgage servicing rights expense[(a)]	$	3,250

(a) Includes the amortization of mortgage servicing rights and additions / recoveries to the valuation allowance of mortgage servicing rights, and is a component of mortgage banking, net on the consolidated statements of income.

The projections of amortization expense for CDIs and decay for MSRs are based on existing asset balances, the current interest rate environment, and prepayment speeds as of June 30, 2022. The actual expense the Corporation recognizes in any given period may be significantly different depending upon acquisition or sale activities, changes in interest rates, prepayment speeds, market conditions, regulatory requirements, and events or circumstances that indicate the carrying amount of an asset may not be recoverable. The following table shows the estimated future amortization expense for amortizing intangible assets:

($ in Thousands)		Core Deposit Intangibles		Mortgage Servicing Rights
Six months ended December 31, 2022	$	4,405	$	6,511
2023		8,811		12,413
2024		8,811		10,884
2025		8,811		9,535
2026		8,811		8,275
2027		8,811		7,198
Beyond 2027		5,227		21,752
Total Estimated Amortization Expense	$	53,687	$	76,570

Note 9 Short and Long-Term Funding

The following table presents the components of short-term funding (funding with original contractual maturities of one year or less) and long-term funding (funding with original contractual maturities greater than one year):

($ in Thousands)	Jun 30, 2022	Dec 31, 2021
Short-Term Funding		
Federal funds purchased	$ 409,180	$ 120
Securities sold under agreements to repurchase	273,659	319,412
Federal funds purchased and securities sold under agreements to repurchase	682,839	319,532
Commercial paper	22,781	34,730
Total short-term funding	$ 705,620	$ 354,262
Long-Term Funding		
Corporation subordinated notes, at par, due 2025	$ 250,000	$ 250,000
Capitalized costs	(691)	(839)
Finance leases	511	163
Total long-term funding	249,820	249,324
Total short and long-term funding, excluding FHLB advances	$ 955,440	$ 603,587
FHLB Advances		
Short-term FHLB advances	$ 2,045,000	$ —
Long-term FHLB advances	1,213,039	1,621,047
Total FHLB advances	3,258,039	1,621,047
Total short and long-term funding	$ 4,213,479	$ 2,224,633

Securities Sold Under Agreements to Repurchase

The Corporation enters into agreements under which it sells securities subject to an obligation to repurchase the same or similar securities. Under these arrangements, the Corporation may transfer legal control over the assets but still retain effective control through an agreement that both entitles and obligates the Corporation to repurchase the assets. The obligation to repurchase the securities is reflected as a liability on the Corporation's consolidated balance sheets, while the securities underlying the repurchase agreements remain in the respective investment securities asset accounts (i.e., there is no offsetting or netting of the investment securities assets with the repurchase agreement liabilities).

The Corporation utilizes securities sold under agreements to repurchase to facilitate the needs of its customers. The fair value of securities pledged to secure repurchase agreements may decline. At June 30, 2022, the Corporation had pledged securities valued at 133% of the gross outstanding balance of repurchase agreements to manage this risk.

The remaining contractual maturity of the securities sold under agreements to repurchase on the consolidated balance sheets as of June 30, 2022 and December 31, 2021 are presented in the following table:

	Overnight and Continuous	
($ in Thousands)	Jun 30, 2022	Dec 31, 2021
Repurchase agreements		
Agency mortgage-related securities	$ 273,659	$ 319,412

Long-Term Funding

Subordinated Notes

In November 2014, the Corporation issued $250 million of 10-year subordinated notes, due January 2025, and callable October 2024. The subordinated notes have a fixed coupon interest rate of 4.25% and were issued at a discount.

Finance Leases

Finance leases are used in conjunction with branch operations. See Note 18 for additional disclosure regarding the Corporation's leases.

FHLB Advances

The Corporation prepaid $400 million in long-term FHLB advances during the first quarter of 2022 with no prepayment fee.

Note 10 Derivative and Hedging Activities

The Corporation is exposed to certain risk arising from both its business operations and economic conditions. The Corporation principally manages its exposures to a wide variety of business and operational risks through management of its core business activities. The Corporation manages economic risks, including interest rate, liquidity, and credit risk primarily by managing the amount, sources, and duration of its assets and liabilities and the use of derivative financial instruments. Specifically, the Corporation enters into derivative financial instruments to manage exposures that arise from business activities that result in the receipt or payment of future known and uncertain cash amounts, the value of which are determined by interest rates. The Corporation's derivative financial instruments are used to manage differences in the amount, timing, and duration of the Corporation's known or expected cash receipts and its known or expected cash payments principally related to the Corporation's assets.

The contract or notional amount of a derivative is used to determine, along with the other terms of the derivative, the amounts to be exchanged between the counterparties. The Corporation is exposed to credit risk in the event of nonperformance by counterparties to financial instruments. To mitigate the counterparty risk, contracts generally contain language outlining collateral pledging requirements for each counterparty. For non-centrally cleared derivatives, collateral must be posted when the market value exceeds certain mutually agreed upon threshold limits. Securities and cash are often pledged as collateral. The Corporation pledged $73 million and $71 million of investment securities as collateral at June 30, 2022 and December 31, 2021, respectively. At June 30, 2022, the Corporation posted immaterial required cash collateral compared to $11 million at December 31, 2021.

Federal regulations require the Corporation to clear all LIBOR and compound SOFR interest rate swaps through a clearing house, if possible. For derivatives cleared through central clearing houses, the variation margin payments are legally characterized as daily settlements of the derivative rather than collateral. The Corporation's clearing agent for interest rate derivative contracts that are centrally cleared through the Chicago Mercantile Exchange (CME) and the London Clearing House (LCH) settles the variation margin daily. As a result, the variation margin payment and the related derivative instruments are considered a single unit of account for accounting and financial reporting purposes. Depending on the net position, the fair value is reported in other assets or accrued expenses and other liabilities on the consolidated balance sheets. The daily settlement of the derivative exposure does not change or reset the contractual terms of the instrument.

Derivatives to Accommodate Customer Needs

The Corporation facilitates customer borrowing activity by entering into various derivative contracts which are designated as free standing derivative contracts. Free standing derivative products are entered into primarily for the benefit of commercial customers seeking to manage their exposures to interest rate risk, foreign currency, and until early 2022, commodity prices. As of the end of the first quarter of 2022, the Corporation no longer had any outstanding commodity contracts. These derivative contracts are not designated against specific assets and liabilities on the consolidated balance sheets or forecasted transactions and, therefore, do not qualify for hedge accounting treatment. Such derivative contracts are carried at fair value in other assets and accrued expenses and other liabilities on the consolidated balance sheets with changes in the fair value recorded as a component of capital markets, net, and typically include interest rate-related instruments (swaps and caps), foreign currency exchange forwards, and until the end of the first quarter of 2022, commodity contracts. See Note 11 for additional information and disclosures on balance sheet offsetting.

Interest rate-related instruments: The Corporation provides interest rate risk management services to commercial customers, primarily forward interest rate swaps and caps. The Corporation’s market risk from unfavorable movements in interest rates related to these derivative contracts is generally economically hedged by concurrently entering into offsetting derivative contracts. The offsetting derivative contracts have identical notional values, terms, and indices.

Foreign currency exchange forwards: The Corporation provides foreign currency exchange services to customers, primarily forward contracts. The Corporation's customers enter into a foreign currency exchange forward with the Corporation as a means for them to mitigate exchange rate risk. The Corporation mitigates its risk by then entering into an offsetting foreign currency exchange derivative contract.

Commodity contracts: As of the end of the first quarter of 2022, the Corporation no longer had any outstanding commodity contracts. Historically, commodity contracts were entered into primarily for the benefit of commercial customers seeking to manage their exposure to fluctuating commodity prices. The Corporation mitigated its risk by then entering into an offsetting commodity derivative contract.

Mortgage Derivatives

Interest rate lock commitments to originate residential mortgage loans held for sale and forward commitments on residential mortgage loans and TBA securities are considered derivative instruments, and the fair value of these commitments is recorded in other assets and accrued expenses and other liabilities on the consolidated balance sheets with the changes in fair value recorded as a component of mortgage banking, net on the consolidated statements of income.

Interest rate-related instruments for MSRs hedge: The fair value of the Corporation's MSRs asset changes in response to changes in primary mortgage loan rates and other assumptions. To mitigate the earnings volatility caused by changes in the fair value of MSRs, the Corporation designates certain financial instruments as an economic hedge. Changes in the fair value of these instruments are generally expected to partially offset changes in the fair value of MSRs and are recorded in other assets and accrued expenses and other liabilities on the consolidated balance sheets with the changes in fair value recorded as a component of mortgage banking, net on the consolidated statements of income.

The following table presents the total notional amounts and gross fair values of the Corporation's derivatives, as well as the balance sheet netting adjustments as of June 30, 2022 and December 31, 2021. The derivative assets and liabilities are presented on a gross basis prior to the application of bilateral collateral and master netting agreements, but after the variation margin payments with central clearing organizations have been applied as settlement, as applicable. Total derivative assets and liabilities are adjusted to take into consideration the effects of legally enforceable master netting agreements and cash collateral received or paid as of June 30, 2022 and December 31, 2021. The resulting net derivative asset and liability fair values are included in other assets and accrued expenses and other liabilities, respectively, on the consolidated balance sheets.

	Jun 30, 2022				Dec 31, 2021			
	Asset		Liability		Asset		Liability	
($ in Thousands)	Notional Amount	Fair Value	Notional Amount	Fair Value	Notional Amount	Fair Value	Notional Amount	Fair Value
Not designated as hedging instruments								
Interest rate-related instruments	$ 4,116,939	$ 34,184	$ 4,116,939	$ 173,955	$ 3,874,781	$ 83,626	$ 3,874,781	$ 26,231
Foreign currency exchange forwards	509,404	4,190	498,773	3,764	490,057	5,490	478,745	5,441
Commodity contracts	—	—	—	—	3,894	1,264	3,910	1,248
Mortgage banking[(a)(b)]	76,824	1,033	105,000	113	133,990	2,647	245,016	—
Gross derivatives before netting		$ 39,407		$ 177,833		$ 93,026		$ 32,921
Less: Legally enforceable master netting agreements		4,369		4,369		2,143		2,143
Less: Cash collateral pledged/received		22,756		—		1,313		11,357
Total derivative instruments, after netting		$ 12,281		$ 173,464		$ 89,570		$ 19,421

(a) The notional amount of the mortgage derivative asset includes interest rate lock commitments, while the notional amount of the mortgage derivative liability includes forward commitments.
(b) At December 31, 2021, the mortgage derivative asset included approximately $30,000 of forward commitments fair value.

The Corporation terminated its $500 million fair value hedge during the fourth quarter of 2019. At June 30, 2022, the amortized cost basis of the closed portfolios which had previously been used in the terminated hedging relationship was $362 million and is included in loans on the consolidated balance sheets. This amount includes $2 million of hedging adjustments on the discontinued hedging relationships.

The table below identifies the effect of fair value hedge accounting on the Corporation's consolidated statements of income for the three and six months ended June 30, 2022 and 2021:

	Location and Amount of Gain or (Loss) Recognized on the Consolidated Statements of Income in Fair Value and Cash Flow Hedging Relationships			
	Three months ended Jun 30,		Six Months Ended Jun 30,	
	2022	2021	2022	2021
($ in Thousands)	Interest Income		Interest Income	
Total amounts of income presented on the consolidated statements of income in which the effects of the fair value hedge is recorded	$ (129)	$ (352)	$ (308)	$ (837)
The effects of fair value hedging: (Loss) on fair value hedging relationships in Subtopic 815-20				
Interest contracts				
Hedged items	(129)	(352)	(308)	(837)

The table below identifies the effect of derivatives not designated as hedging instruments on the Corporation's consolidated statements of income for the three and six months ended June 30, 2022 and 2021:

($ in Thousands)	Consolidated Statements of Income Category of Gain / (Loss) Recognized in Income	Three Months Ended Jun 30, 2022	Three Months Ended Jun 30, 2021	Six Months Ended Jun 30, 2022	Six Months Ended Jun 30, 2021
Derivative Instruments					
Interest rate-related instruments — customer and mirror, net	Capital markets, net	$ 8	$ (950)	$ 581	$ 1,989
Interest rate-related instruments — MSRs hedge	Mortgage banking, net	(5,346)	—	(9,012)	—
Foreign currency exchange forwards	Capital markets, net	254	(25)	377	118
Commodity contracts	Capital markets, net	—	(512)	(16)	(1,132)
Interest rate lock commitments (mortgage)	Mortgage banking, net	1,210	(373)	(1,631)	(3,081)
Forward commitments (mortgage)	Mortgage banking, net	4,885	4,685	128	(1,616)

Note 11 Balance Sheet Offsetting

Interest Rate-Related Instruments, Commodity Contracts, and Foreign Exchange Forwards (“Interest, Commodity, and Foreign Exchange Agreements”)

The Corporation enters into interest rate-related instruments to facilitate the interest rate risk management strategies of commercial customers and foreign exchange forwards to manage customers' exposure to fluctuating foreign exchange rates. The Corporation mitigates these risks by entering into equal and offsetting agreements with highly rated third-party financial institutions. Historically, the Corporation entered into commodity contracts to manage commercial customers' exposure to fluctuating commodity prices. As of the end of the first quarter of 2022, the Corporation no longer had any outstanding commodity contracts. The Corporation is party to master netting arrangements with its financial institution counterparties that create single net settlements of all legal claims or obligations to pay or receive the net amount of settlement of the individual interest and foreign exchange agreements. Collateral, usually in the form of investment securities and cash, is posted by the counterparty with net liability positions in accordance with contract thresholds. Derivatives subject to a legally enforceable master netting agreement are reported with assets and liabilities offset resulting in a net position which is further offset by any cash and investment securities collateral, and is reported in other assets and accrued expenses and other liabilities, on the face of the consolidated balance sheets. See Note 10 for additional information on the Corporation’s derivative and hedging activities.

The following table presents the interest rate and foreign exchange assets and liabilities subject to an enforceable master netting arrangement as of June 30, 2022 and interest rate, commodity, and foreign exchange assets and liabilities subject to an enforceable master netting arrangement as of December 31, 2021. The interest and foreign exchange agreements the Corporation has with its commercial customers and the commodity agreements the Corporation had with its commercial customers are not subject to an enforceable master netting arrangement and are therefore excluded from this table:

($ in Thousands)	Gross Amounts Recognized	Gross Amounts Subject to Master Netting Arrangements Offset on the Consolidated Balance Sheets: Derivative Liabilities Offset	Cash Collateral Received	Net Amounts Presented on the Consolidated Balance Sheets
Derivative assets				
June 30, 2022	**$ 27,214**	**$ (4,369)**	**$ (22,756)**	**$ 89**
December 31, 2021	3,567	(2,143)	(1,313)	111

($ in Thousands)	Gross Amounts Recognized	Gross Amounts Subject to Master Netting Arrangements Offset on the Consolidated Balance Sheets: Derivative Assets Offset	Cash Collateral Pledged	Net Amounts Presented on the Consolidated Balance Sheets
Derivative liabilities				
June 30, 2022	**$ 4,618**	**$ (4,369)**	**$ —**	**$ 249**
December 31, 2021	15,620	(2,143)	(11,357)	2,120

Note 12 Commitments, Off-Balance Sheet Arrangements, Legal Proceedings, Regulatory Matters and Operational Matters

The Corporation utilizes a variety of financial instruments in the normal course of business to meet the financial needs of its customers and to manage its own exposure to fluctuations in interest rates. These financial instruments include lending-related and other commitments (see below) as well as derivative instruments (see Note 10). The following is a summary of lending-related commitments:

($ in Thousands)		Jun 30, 2022		Dec 31, 2021
Commitments to extend credit, excluding commitments to originate residential mortgage loans held for sale[a][b]	$	11,483,648	$	10,848,136
Commercial letters of credit[a]		5,152		5,992
Standby letters of credit[c]		274,324		248,292

(a) These off-balance sheet financial instruments are exercisable at the market rate prevailing at the date the underlying transaction will be completed and, thus, are deemed to have no current fair value, or the fair value is based on fees currently charged to enter into similar agreements and was not material at June 30, 2022 or December 31, 2021.
(b) Interest rate lock commitments to originate residential mortgage loans held for sale are considered derivative instruments and are disclosed in Note 10.
(c) The Corporation has established a liability of $3 million and $2 million for June 30, 2022 and December 31, 2021, respectively, as an estimate of the fair value of these financial instruments.

Lending-related Commitments

As a financial services provider, the Corporation routinely enters into commitments to extend credit. Such commitments are subject to the same credit policies and approval process accorded to loans made by the Corporation, with each customer's creditworthiness evaluated on a case-by-case basis. The commitments generally have fixed expiration dates or other termination clauses and may require the payment of a fee. The Corporation's exposure to credit loss in the event of nonperformance by the other party to these financial instruments is represented by the contractual amount of those instruments. The amount of collateral obtained, if deemed necessary by the Corporation upon extension of credit, is based on management's credit evaluation of the customer. Since a significant portion of commitments to extend credit are subject to specific restrictive loan covenants or may expire without being drawn upon, the total commitment amounts do not necessarily represent future cash flow requirements. An allowance for unfunded commitments is maintained at a level believed by management to be sufficient to absorb expected lifetime losses related to unfunded commitments (including unfunded loan commitments and letters of credit).

The following table presents a summary of the changes in the allowance for unfunded commitments:

($ in Thousands)		Six Months Ended June 30, 2022		Year Ended December 31, 2021
Allowance for Unfunded Commitments				
Balance at beginning of period	$	39,776	$	47,776
Provision for unfunded commitments		(3,000)		(8,000)
Balance at end of period	$	36,776	$	39,776

Lending-related commitments include commitments to extend credit, commitments to originate residential mortgage loans held for sale, commercial letters of credit, and standby letters of credit. Commitments to extend credit are legally binding agreements to lend to customers at predetermined interest rates, as long as there is no violation of any condition established in the contracts. Interest rate lock commitments to originate residential mortgage loans held for sale and forward commitments on residential mortgage loans and TBA securities are considered derivative instruments, and the fair value of these commitments is recorded in other assets and accrued expenses and other liabilities on the consolidated balance sheets. The Corporation's derivative and hedging activity is further described in Note 10. Commercial and standby letters of credit are conditional commitments issued to guarantee the performance of a customer to a third party. Commercial letters of credit are issued specifically to facilitate commerce and typically result in the commitment being drawn on when the underlying transaction is consummated between the customer and the third party, while standby letters of credit generally are contingent upon the failure of the customer to perform according to the terms of the underlying contract with the third party.

Other Commitments

The Corporation invests in qualified affordable housing projects, historic projects, new market projects, and opportunity zone funds for the purpose of community reinvestment and obtaining tax credits and other tax benefits. Return on the Corporation's investment in these projects and funds comes in the form of the tax credits and tax losses that pass through to the Corporation, and deferral or elimination of capital gain recognition for tax purposes. The aggregate carrying value of these investments at June 30, 2022 was $250 million, compared to $268 million at December 31, 2021, included in tax credit and other investments on the consolidated balance sheets. The Corporation utilizes the proportional amortization method to account for investments in qualified affordable housing projects.

Under the proportional amortization method, the Corporation amortizes the initial cost of the investment in proportion to the tax credits and other tax benefits. The Corporation recognized additional income tax expense attributable to the amortization of investments in qualified affordable housing projects of $16 million for both the six months ended June 30, 2022 and June 30, 2021, and $8 million for both the three months ended June 30, 2022 and June 30, 2021. The Corporation's remaining investment in qualified affordable housing projects accounted for under the proportional amortization method totaled $245 million at June 30, 2022 and $262 million at December 31, 2021.

The Corporation’s unfunded equity contributions relating to investments in qualified affordable housing and historic projects are recorded in accrued expenses and other liabilities on the consolidated balance sheets. The Corporation’s remaining unfunded equity contributions totaled $44 million at June 30, 2022 and $80 million at December 31, 2021.

For the six months ended June 30, 2022 and the year ended December 31, 2021, the Corporation did not record any impairment related to qualified affordable housing investments.

The Corporation has principal investment commitments to provide capital-based financing to private companies through either direct investment in specific companies or through investment funds and partnerships. The timing of future cash requirements to fund such principal investment commitments is generally dependent on the investment cycle, whereby privately held companies are funded by private equity investors and ultimately sold, merged, or taken public through an initial offering, which can vary based on overall market conditions, as well as the nature and type of industry in which the companies operate. The Corporation also invests in loan pools that support CRA loans. The timing of future cash requirements to fund these pools is dependent upon loan demand, which can vary over time. The aggregate carrying value of these investments was $25 million at both June 30, 2022 and December 31, 2021, included in tax credit and other investments on the consolidated balance sheets.

Legal Proceedings

The Corporation is party to various pending and threatened claims and legal proceedings arising in the normal course of business activities, some of which involve claims for substantial amounts. Although there can be no assurance as to the ultimate outcomes, the Corporation believes it has meritorious defenses to the claims asserted against it in its currently outstanding matters and intends to continue to defend itself vigorously with respect to such legal proceedings. The Corporation will consider settlement of cases when, in management’s judgment, it is in the best interests of the Corporation and its shareholders.

On at least a quarterly basis, the Corporation assesses its liabilities and contingencies in connection with all pending or threatened claims and litigation, utilizing the most recent information available. On a matter by matter basis, an accrual for loss is established for those matters which the Corporation believes it is probable that a loss may be incurred and that the amount of such loss can be reasonably estimated. Once established, each accrual is adjusted as appropriate to reflect any subsequent developments. Accordingly, management’s estimate will change from time to time, and actual losses may be more or less than the current estimate. For matters where a loss is not probable, or the amount of the loss cannot be estimated, no accrual is established.

Resolution of legal claims is inherently unpredictable, and in many legal proceedings various factors exacerbate this inherent unpredictability, including where the damages sought are unsubstantiated or indeterminate, it is unclear whether a case brought as a class action will be allowed to proceed on that basis, discovery is not complete, the proceeding is not yet in its final stages, the matters present legal uncertainties, there are significant facts in dispute, there are a large number of parties (including where it is uncertain how liability, if any, will be shared among multiple defendants), or there is a wide range of potential results.

A lawsuit, *Evans et al v. Associated Banc-Corp et al*, was filed in the United States District Court for the Eastern District of Wisconsin - Green Bay Division on January 13, 2021 by one current and one former participant in the Associated Banc-Corp 401(k) and Employee Stock Ownership Plan (the “Plan”) as representatives of a putative class. The plaintiffs alleged that Associated Banc-Corp, the Associated Banc-Corp Plan Administrative Committee, and current and past members of such committee during the relevant time period (the “Defendants”) breached their fiduciary duties with respect to the Plan in violation of Employee Retirement Income Security Act of 1974, as amended, by applying an imprudent and inappropriate preference for products associated with Associated Banc-Corp within the Plan, and that the Defendants failed to monitor or control the recordkeeping expenses paid to Associated Trust Company, N.A. On March 18, 2021, the Defendants filed a motion to dismiss. On April 8, 2021, the plaintiffs filed an amended complaint which dropped the record keeping claim, added Associated Trust Company N.A. and Kellogg Asset Management, LLC as defendants, and alleged various breaches of fiduciary duty related to the selection and monitoring of, and the fees charged by, proprietary collective investment trusts. The plaintiffs, in part, seek an accounting and disgorgement of certain profits, as well as certain equitable restitution and equitable monetary relief. The Corporation intends to vigorously defend against this lawsuit. It is not possible for management to assess the probability of a material adverse outcome or reasonably estimate the amount of any potential loss at this time with respect to this lawsuit.

Regulatory Matters

A variety of consumer products, including mortgage and deposit products, and certain fees and charges related to such products, have come under increased regulatory scrutiny. It is possible that regulatory authorities could bring enforcement actions, including civil money penalties, or take other actions against the Corporation and the Bank in regard to these consumer products. The Bank could also determine of its own accord, or be required by regulators, to refund or otherwise make remediation payments to customers in connection with these products. It is not possible at this time for management to assess the probability of a material adverse outcome or reasonably estimate the amount of any potential loss related to such matters.

Operational Matters

In November 2021, we became aware that during several routine purges of old documents, certain documents that were more than seven years old relating to active accounts were inadvertently purged from our electronic database. The active account documents that were inadvertently purged related to (1) certain customer documents obtained as part of bank acquisitions, and (2) certain customer documents that were transferred to a new cold storage system without correct retention coding. Both the acquisitions and the transfer occurred years ago. The majority of the documents inadvertently purged were signature cards. We have undertaken measures to replace (if possible) or otherwise lessen the impact on customers of any inadvertently purged documents. While the impact on the Company of this incident has been immaterial to date, and we are not aware of any material adverse customer impact, it is not possible at this time for management to reasonably estimate the amount of any potential loss related to this incident.

Mortgage Repurchase Reserve

The Corporation sells residential mortgage loans to investors in the normal course of business. Residential mortgage loans sold to others are predominantly conventional residential first lien mortgages originated under the Corporation's usual underwriting procedures, and are most often sold on a nonrecourse basis, primarily to the GSEs. The Corporation’s agreements to sell residential mortgage loans in the normal course of business usually require certain representations and warranties on the underlying loans sold, related to credit information, loan documentation, collateral, and insurability. Subsequent to being sold, if a material underwriting deficiency or documentation defect is discovered, the Corporation may be obligated to repurchase the loan or reimburse the GSEs for losses incurred (collectively, “make whole requests”). The make whole requests and any related risk of loss under the representations and warranties are largely driven by borrower performance. Additionally, beginning in the third quarter of 2021, qualifying residential mortgage loans guaranteed by U.S. government agencies have been sold into GNMA pools.

As a result of make whole requests, the Corporation has repurchased loans with aggregate principal balances of $3 million and $8 million for the six months ended June 30, 2022 and the year ended December 31, 2021, respectively. There were no loss reimbursement and settlement claims paid in the six months ended June 30, 2022, and approximately $114,000 of such claims were paid for the year ended December 31, 2021. Make whole requests during 2021 and the first six months of 2022 generally arose from loans originated during the period of January 1, 2017 to December 31, 2021. Since January 1, 2017, loans sold totaled $7.4 billion at the time of sale, and consisted primarily of loans sold to GSEs. As of June 30, 2022, $4.6 billion of loans originated since January 1, 2017 remain outstanding.

The balance in the mortgage repurchase reserve at the balance sheet date reflects the estimated amount of potential loss the Corporation could incur from repurchasing a loan, as well as loss reimbursements, indemnifications, and other settlement resolutions. The mortgage repurchase reserve, included in accrued expenses and other liabilities on the consolidated balance sheets, was $1 million at both June 30, 2022 and December 31, 2021.

The Corporation may also sell residential mortgage loans with limited recourse (limited in that the recourse period ends prior to the loan’s maturity, usually after certain time and / or loan paydown criteria have been met), whereby repurchase could be required if the loan had defined delinquency issues during the limited recourse periods. At June 30, 2022 and December 31, 2021, there were $7 million and $10 million, respectively, of residential mortgage loans sold with such recourse risk. There have been limited instances and immaterial historical losses on repurchases for recourse under the limited recourse criteria.

The Corporation has a subordinate position to the FHLB in the credit risk on residential mortgage loans it sold to the FHLB in exchange for a monthly credit enhancement fee. The Corporation has not sold loans to the FHLB with such credit risk retention since February 2005. At June 30, 2022 and December 31, 2021, there were $22 million and $24 million, respectively, of such residential mortgage loans with credit risk recourse, upon which there have been immaterial historical losses to the Corporation.

Note 13 Fair Value Measurements

Fair value represents the estimated price at which an orderly transaction to sell an asset or to transfer a liability would take place between market participants at the measurement date under current market conditions (i.e., an exit price concept).

The valuation methodologies for assets and liabilities measured at fair value on a recurring and non-recurring basis are described in the Fair Value Measurements note in the Corporation’s 2021 Annual Report on Form 10-K. There has been one significant change to the methodologies for assets and liabilities measured at fair value on a recurring basis:

Mortgage Servicing Rights: The Corporation sells residential mortgage loans in the secondary market and typically retains the rights to service the loans sold. Upon sale, a MSRs asset is capitalized, which represents the then current fair value of future net cash flows expected to be realized for performing servicing activities. On January 1, 2022, the Corporation made the irrevocable election to account for its MSRs asset under the fair value measurement method. Under this methodology, changes in the fair value are recognized in earnings as they occur through mortgage banking, net on the consolidated statements of income.

MSRs are not traded in active markets. A cash flow model is used to determine fair value. Key assumptions and estimates, including projected prepayment speeds, assumed servicing costs, ancillary income, costs to service delinquent loans, costs of foreclosure, and discount rates with option-adjusted spreads, used by this model are based on current market sources. Assumptions used to value MSRs are considered significant unobservable inputs. A separate third-party model is used to estimate prepayment speeds based on interest rates, housing turnover rates, estimated loan curtailment, anticipated defaults and other relevant factors. Fair value estimates from outside sources are received periodically to corroborate the results of the valuation model. Due to the nature of the valuation inputs, MSRs are classified within Level 3 of the fair value hierarchy. See Note 8 for additional disclosures about the Corporation's MSRs.

The table below presents the Corporation’s financial instruments measured at fair value on a recurring basis as of June 30, 2022 and December 31, 2021, aggregated by the level in the fair value hierarchy within which those measurements fall:

($ in Thousands)	Fair Value Hierarchy	Jun 30, 2022	Dec 31, 2021
Assets			
AFS investment securities			
U.S. Treasury securities	Level 1	$ 113,109	$ 122,957
Agency securities	Level 2	13,959	14,897
Obligations of state and political subdivisions (municipal securities)	Level 2	358,842	400,457
Residential mortgage-related securities			
FNMA / FHLMC	Level 2	1,811,603	2,691,879
GNMA	Level 2	86,238	67,780
Private-label	Level 2	—	329,724
Commercial mortgage-related securities			
FNMA / FHLMC	Level 2	18,606	350,623
GNMA	Level 2	105,680	166,799
Asset backed securities			
FFELP	Level 2	161,264	177,325
SBA	Level 2	5,281	6,580
Other debt securities	Level 2	2,929	2,994
Total AFS investment securities	Level 1	$ 113,109	$ 122,957
Total AFS investment securities	Level 2	2,564,402	4,209,058
Equity securities with readily determinable fair values	Level 1	5,502	4,810
Residential loans held for sale	Level 2	42,676	136,638
Mortgage servicing rights, net[a]	Level 3	76,570	N/A
Interest rate-related instruments[b]	Level 2	34,184	83,626
Foreign currency exchange forwards[b]	Level 2	4,190	5,490
Commodity contracts[b]	Level 2	—	1,264
Interest rate lock commitments to originate residential mortgage loans held for sale	Level 3	986	2,617
Forward commitments on residential mortgage loans	Level 3	—	30
Forward commitments on TBA securities	Level 3	47	—
Liabilities			
Interest rate-related instruments[b]	Level 2	$ 173,955	$ 26,231
Foreign currency exchange forwards[b]	Level 2	3,764	5,441
Commodity contracts[b]	Level 2	—	1,248
Forward commitments on residential mortgage loans	Level 3	113	—

(a) MSRs at December 31, 2021 were carried at LOCOM. On January 1, 2022, the Corporation made the irrevocable election to account for MSRs at fair value on a recurring basis.
(b) Figures are presented gross before netting. See Note 10 and Note 11 for information relating to the impact of offsetting derivative assets and liabilities and cash collateral with the same counterparty where there is a legally enforceable master netting agreement in place.

The table below presents a rollforward of the consolidated balance sheets amounts for the six months ended June 30, 2022 and the year ended December 31, 2021, for the Corporation's mortgage derivatives measured on a recurring basis and classified within Level 3 of the fair value hierarchy:

($ in Thousands)	Interest rate lock commitments to originate residential mortgage loans held for sale	Forward commitments on residential mortgage loans and TBA securities	Total
Balance December 31, 2020	$ 9,624	$ 2,046	$ 7,579
New production	53,686	(3,281)	56,966
Closed loans / settlements	(53,477)	3,740	(57,217)
Other	(7,216)	(2,535)	(4,680)
Change in mortgage derivative	(7,007)	(2,076)	(4,932)
Balance December 31, 2021	$ 2,617	$ (30)	$ 2,647
New production	$ 7,237	$ (1,083)	$ 8,320
Closed loans / settlements	637	20,035	(19,398)
Other	(9,505)	(18,856)	9,351
Change in mortgage derivative	(1,631)	96	(1,727)
Balance June 30, 2022	$ 986	$ 66	$ 920

The following table presents the carrying value of equity securities without readily determinable fair values as of June 30, 2022 that are measured under the measurement alternative and the related adjustments recorded during the periods presented for those securities with observable price changes. These securities are included in the nonrecurring fair value tables when applicable price changes are observable. Also shown are the cumulative upward and downward adjustments for the Corporation's equity securities without readily determinable fair values as of June 30, 2022:

($ in Thousands)		
Equity securities without readily determinable fair values		
Carrying value as of December 31, 2021	$	13,542
Additions		4
Sales		(8)
Carrying value as of June 30, 2022	$	13,538
Cumulative upward carrying value changes between January 1, 2018 and June 30, 2022	$	13,444
Cumulative downward carrying value changes/impairment between January 1, 2018 and June 30, 2022	$	—

The table below presents the Corporation's assets measured at fair value on a nonrecurring basis, aggregated by the level in the fair value hierarchy within which those measurements fall:

($ in Thousands)	Fair Value Hierarchy	Fair Value	Consolidated Statements of Income Category of Adjustment Recognized in Income	Adjustment Recognized on the Consolidated Statements of Income[(c)]
June 30, 2022				
Assets				
Individually evaluated loans[(a)]	Level 3	$ 35,906	Provision for credit losses	$ (2,260)
OREO[(b)]	Level 2	2,098	Other noninterest expense / provision for credit losses[(d)]	496
December 31, 2021				
Assets				
Individually evaluated loans[(a)]	Level 3	$ 69,917	Provision for credit losses	$ (3,045)
OREO[(b)]	Level 2	21,299	Other noninterest expense / provision for credit losses[(d)]	7,345
Mortgage servicing rights[(e)]	Level 3	57,259	Mortgage banking, net	16,186

(a) Includes probable TDRs which are individually analyzed, net of the related ACLL, of which there were none at June 30, 2022.
(b) If the fair value of the collateral exceeds the carrying amount of the asset, no charge off or adjustment is necessary, the asset is not considered to be carried at fair value, and is therefore not included in the table.
(c) Includes the full year impact on the consolidated statements of income.
(d) When a property's value is written down at the time it is transferred to OREO, the charge off is booked to the provision for credit losses. When a property is already in OREO and subsequently written down, the charge off is booked to other noninterest expense.
(e) MSRs at December 31, 2021 were carried at LOCOM. On January 1, 2022, the Corporation made the irrevocable election to account for MSRs at fair value on a recurring basis.

Certain nonfinancial assets and nonfinancial liabilities measured at fair value on a nonrecurring basis include the fair value analysis in the goodwill impairment test as well as intangible assets and other nonfinancial long-lived assets measured at fair value for the purpose of impairment assessment.

The table below presents the unobservable inputs that are readily quantifiable pertaining to Level 3 measurements:

June 30, 2022	Valuation Technique	Significant Unobservable Input	Range of Inputs	Weighted Average Input Applied
Mortgage servicing rights	Discounted cash flow	Option adjusted spread	8% - 10%	8%
Mortgage servicing rights	Discounted cash flow	Constant prepayment rate	—% - 100%	8%
Individually evaluated loans	Appraisals / Discounted cash flow	Collateral / Discount factor	27% - 29%	27%
Interest rate lock commitments to originate residential mortgage loans held for sale	Discounted cash flow	Closing Ratio	32% - 100%	86%

Fair Value of Financial Instruments

The Corporation is required to disclose estimated fair values for its financial instruments.

Fair value estimates are set forth below for the Corporation's financial instruments:

($ in Thousands)	Fair Value Hierarchy Level	Jun 30, 2022 Carrying Amount	Jun 30, 2022 Fair Value	Dec 31, 2021 Carrying Amount	Dec 31, 2021 Fair Value
Financial assets					
Cash and due from banks	Level 1	$ 397,364	$ 397,364	$ 343,831	$ 343,831
Interest-bearing deposits in other financial institutions	Level 1	436,887	436,887	681,684	681,684
Federal funds sold and securities purchased under agreements to resell	Level 1	32,820	32,820	—	—
AFS investment securities	Level 1	113,109	113,109	122,957	122,957
AFS investment securities	Level 2	2,564,402	2,564,402	4,209,058	4,209,058
HTM investment securities, net	Level 1	998	955	1,000	1,001
HTM investment securities, net	Level 2	3,944,208	3,533,175	2,237,947	2,347,608
Equity securities with readily determinable fair values	Level 1	5,502	5,502	4,810	4,810
Equity securities without readily determinable fair values	Level 3	13,538	13,538	13,542	13,542
FHLB and Federal Reserve Bank stocks	Level 2	237,616	237,616	168,281	168,281
Residential loans held for sale	Level 2	42,676	42,676	136,638	136,638
Commercial loans held for sale	Level 2	44,721	44,721	—	—
Loans, net	Level 3	26,213,927	25,322,573	23,944,934	23,980,330
Bank and corporate owned life insurance	Level 2	675,347	675,347	680,021	680,021
Mortgage servicing rights, net[(a)]	Level 3	76,570	76,570	54,862	57,259
Derivatives (other assets)[(b)]	Level 2	38,374	38,374	90,379	90,379
Interest rate lock commitments to originate residential mortgage loans held for sale (other assets)	Level 3	986	986	2,617	2,617
Forward commitments on residential mortgage loans (other assets)	Level 3	—	—	30	30
Forward commitments on TBA securities (other assets)	Level 3	47	47	—	—
Financial liabilities					
Noninterest-bearing demand, savings, interest-bearing demand, and money market accounts	Level 3	$ 27,352,996	$ 27,352,996	$ 27,119,167	$ 27,119,167
Time deposits[(c)]	Level 2	1,223,581	1,223,581	1,347,262	1,347,262
Short-term funding	Level 2	705,620	705,216	354,262	354,248
FHLB advances	Level 2	3,258,039	3,250,216	1,621,047	1,680,814
Other long-term funding	Level 2	249,820	250,571	249,324	265,545
Standby letters of credit[(d)]	Level 2	2,617	2,617	2,367	2,367
Derivatives (accrued expenses and other liabilities)[(b)]	Level 2	177,720	177,720	32,921	32,921
Forward commitments on residential mortgage loans (accrued expenses and other liabilities)	Level 3	113	113	—	—

(a) MSRs at December 31, 2021 were carried at LOCOM. On January 1, 2022, the Corporation made the irrevocable election to account for MSRs at fair value.
(b) Figures are presented gross before netting. See Note 10 and Note 11 for information relating to the impact of offsetting derivative assets and liabilities and cash collateral with the same counterparty where there is a legally enforceable master netting agreement in place.
(c) When the estimated fair value is less than the carrying value, the carrying value is reported as the fair value.
(d) The commitment on standby letters of credit was $274 million at June 30, 2022 and $248 million at December 31, 2021. See Note 12 for additional information on the standby letters of credit and for information on the fair value of lending-related commitments.

Note 14 Retirement Plans

The Corporation has a noncontributory defined benefit RAP, covering substantially all employees who meet participation requirements. The benefits are based primarily on years of service and the employee's compensation paid. Employees of acquired entities generally participate in the RAP after consummation of the business combinations. Any retirement plans of acquired entities are typically merged into the RAP after completion of the mergers, and credit is usually given to employees for years of service at the acquired institution for vesting and eligibility purposes.

The Corporation also provides legacy healthcare access to a limited group of retired employees from a previous acquisition in the Postretirement Plan. There are no other active retiree healthcare plans.

The components of net periodic pension cost and net periodic benefit cost for the RAP and Postretirement Plan for the three and six months ended June 30, 2022 and 2021 were as follows:

	Three Months Ended Jun 30,		Six Months Ended Jun 30,	
($ in Thousands)	2022	2021	2022	2021
Components of Net Periodic Benefit Cost				
RAP				
Service cost	$ 923	$ 2,075	$ 1,847	$ 4,151
Interest cost	1,772	1,623	3,545	3,245
Expected return on plan assets	(6,736)	(6,430)	(13,472)	(12,861)
Amortization of prior service cost	(63)	(18)	(125)	(37)
Amortization of actuarial loss	74	1,050	147	2,100
Total net periodic pension cost	$ (4,029)	$ (1,701)	$ (8,059)	$ (3,402)
Postretirement Plan				
Interest cost	$ 13	$ 13	$ 27	$ 26
Amortization of prior service cost	(19)	(19)	(38)	(38)
Total net periodic benefit cost	$ (6)	$ (6)	$ (11)	$ (12)

The components of net periodic pension cost and net periodic benefit cost, other than the service cost component, are included in the line item other of noninterest expense on the consolidated statements of income. The service cost components are included in personnel on the consolidated statements of income.

The Corporation's funding policy is to pay at least the minimum amount required by federal law and regulations, with consideration given to the maximum funding amounts allowed. The Corporation regularly reviews the funding of its RAP. There were no contributions during the six months ended June 30, 2022 and 2021.

Note 15 Segment Reporting

The Corporation utilizes a risk-based internal profitability measurement system to provide strategic business unit reporting. The profitability measurement system is based on internal management methodologies designed to produce consistent results and reflect the underlying economics of the units. Certain strategic business units have been combined for segment information reporting purposes where the nature of the products and services, the type of customer, and the distribution of those products and services are similar. The three reportable segments are Corporate and Commercial Specialty; Community, Consumer, and Business; and Risk Management and Shared Services. The financial information of the Corporation's segments has been compiled utilizing the accounting policies described in the Corporation's 2021 Annual Report on Form 10-K with certain exceptions. The more significant of these exceptions are described herein.

The reportable segment results are presented based on the Corporation's internal management accounting process. The management accounting policies and processes utilized in compiling segment financial information are highly subjective and, unlike financial accounting, are not based on authoritative guidance similar to U.S. GAAP. As a result, reported segments and the financial information of the reported segments are not necessarily comparable with similar information reported by other financial institutions. Furthermore, changes in management structure or allocation methodologies and procedures may result in changes in previously reported segment financial data. Additionally, the information presented is not indicative of how the segments would perform if they operated as independent entities.

To determine financial performance of each segment, the Corporation allocates FTP assignments, the provision for credit losses, certain noninterest expenses, income taxes, and equity to each segment. Allocation methodologies are subject to periodic adjustment as the internal management accounting system is revised, the interest rate environment evolves, and business or product lines within the segments change. Also, because the development and application of these methodologies is a dynamic process, the financial results presented may be periodically reviewed.

The Corporation allocates net interest income using an internal FTP methodology that charges users of funds (assets, primarily loans) and credits providers of funds (liabilities, primarily deposits) based on the maturity, prepayment and / or re-pricing characteristics of the assets and liabilities. The net effect of this allocation is offset in the Risk Management and Shared Services segment to ensure consolidated totals reflect the Corporation's net interest income. The net FTP allocation is reflected as net intersegment interest income (expense) in the accompanying tables.

The provision for credit losses is allocated to segments based on the expected long-term annual net charge off rates attributable to the credit risk of loans managed by the segment during the period. In contrast, the level of the consolidated provision for credit losses is determined based on an ACLL model using the methodologies described in the Corporation's 2021 Annual Report on Form 10-K. The net effect of the credit provision is recorded in Risk Management and Shared Services. Indirect expenses incurred by certain centralized support areas are allocated to segments based on actual usage (for example, volume measurements) and other criteria. Certain types of administrative expense and bank-wide expense accruals (including amortization of CDIs and other intangible assets associated with acquisitions, acquisition-related costs, and asset gains on disposed business units) are generally not allocated to segments. Income taxes are allocated to segments based on the Corporation's estimated effective tax rate, with certain segments adjusted for any tax-exempt income or non-deductible expenses. Equity is allocated to the segments based on regulatory capital requirements and in proportion to an assessment of the inherent risks associated with the business of the segment (including interest, credit and operating risk).

A brief description of each business segment is presented below. A more in-depth discussion of these segments can be found in the Segment Reporting note in the Corporation's 2021 Annual Report on Form 10-K.

The Corporate and Commercial Specialty segment serves a wide range of customers including larger businesses, developers, not-for-profits, municipalities, and financial institutions by providing lending and deposit solutions as well as the support to deliver, fund, and manage such banking solutions. In addition, this segment provides a variety of investment, fiduciary, and retirement planning products and services to individuals and small to mid-sized businesses. During the first quarter of 2021, the Corporation sold its wealth management subsidiary Whitnell. The Community, Consumer, and Business segment serves individuals, as well as small and mid-sized businesses, by providing lending and deposit solutions. The Risk Management and Shared Services segment includes key shared operational functions and also includes residual revenue and expenses, representing the difference between actual amounts incurred and the amounts allocated to operating segments, including interest rate risk residuals (FTP mismatches) and credit risk and provision residuals (long-term credit charge mismatches).

Effective during the first quarter of 2022, certain support functions and a select group of banking regions were realigned into the Community, Consumer, and Business segment from the Corporate and Commercial Specialty segment.

Information about the Corporation's segments is presented below:

	Corporate and Commercial Specialty			
	Three Months Ended Jun 30,		Six Months Ended Jun 30,	
($ in Thousands)	2022	2021	2022	2021
Net interest income	$ 111,359	$ 90,039	$ 201,992	$ 179,700
Net intersegment interest income (expense)	(5,301)	4,324	3,224	8,994
Segment net interest income	106,058	94,363	205,216	188,694
Noninterest income[(a)]	39,133	37,281	76,923	79,109
Total revenue	145,191	131,643	282,139	267,803
Provision for credit losses	12,246	15,716	24,900	32,395
Noninterest expense	56,847	53,902	113,406	109,349
Income before income taxes	76,098	62,026	143,833	126,058
Income tax expense	13,919	11,214	26,232	23,106
Net income	$ 62,179	$ 50,812	$ 117,601	$ 102,953
Allocated goodwill			$ 525,836	$ 525,836

	Community, Consumer, and Business			
	Three Months Ended Jun 30,		Six Months Ended Jun 30,	
($ in Thousands)	2022	2021	2022	2021
Net interest income	$ 76,999	$ 73,477	$ 146,543	$ 145,253
Net intersegment interest income	30,638	15,992	49,470	30,881
Segment net interest income	107,636	89,470	196,013	176,134
Noninterest income	32,121	32,967	65,327	80,298
Total revenue	139,757	122,437	261,341	256,432
Provision for credit losses	4,924	5,279	9,580	11,207
Noninterest expense	105,139	101,735	203,802	202,086
Income before income taxes	29,695	15,424	47,959	43,139
Income tax expense	6,236	3,239	10,071	9,059
Net income	$ 23,459	$ 12,185	$ 37,888	$ 34,080
Allocated goodwill			$ 579,156	$ 579,156

($ in Thousands)	Risk Management and Shared Services			
	Three Months Ended Jun 30,		Six Months Ended Jun 30,	
	2022	2021	2022	2021
Net interest income	$ 27,789	$ 15,999	$ 55,358	$ 30,464
Net intersegment (expense)	(25,337)	(20,316)	(52,694)	(39,875)
Segment net interest income (loss)	2,452	(4,318)	2,664	(9,412)
Noninterest income	4,204	3,195	7,675	9,379
Total revenue	6,656	(1,123)	10,339	(33)
Provision for credit losses	(17,172)	(55,999)	(38,472)	(101,610)
Noninterest expense	19,434	18,839	37,505	38,386
Income before income taxes	4,394	36,037	11,307	63,191
Income tax expense	3,209	8,027	5,710	14,917
Net income	$ 1,186	$ 28,010	$ 5,597	$ 48,274
Allocated goodwill			$ —	$ —

($ in Thousands)	Consolidated Total			
	Three Months Ended Jun 30,		Six Months Ended Jun 30,	
	2022	2021	2022	2021
Net interest income	$ 216,146	$ 179,515	$ 403,893	$ 355,416
Net intersegment interest income	—	—	—	—
Segment net interest income	216,146	179,515	403,893	355,416
Noninterest income[a]	75,458	73,443	149,925	168,786
Total revenue	291,604	252,957	553,819	524,202
Provision for credit losses	(2)	(35,004)	(3,992)	(58,009)
Noninterest expense	181,420	174,475	354,712	349,821
Income before income taxes	110,187	113,487	203,099	232,389
Income tax expense	23,363	22,480	42,013	47,082
Net income	$ 86,824	$ 91,007	$ 161,086	$ 185,307
Allocated goodwill			$ 1,104,992	$ 1,104,992

(a) For the six months ended June 30, 2021, the Corporation recognized a $2 million pre-tax gain on sale of Whitnell.

Note 16 Accumulated Other Comprehensive Income (Loss)

The following tables summarize the components of accumulated other comprehensive income (loss) at June 30, 2022 and 2021, including changes during the preceding three and six month periods as well as any reclassifications out of accumulated other comprehensive income (loss):

($ in Thousands)	AFS Investment Securities	Defined Benefit Pension and Postretirement Obligations	Accumulated Other Comprehensive Income (Loss)
Balance December 31, 2021	$ (5,266)	$ (5,051)	$ (10,317)
Other comprehensive (loss) before reclassifications	(168,321)	—	(168,321)
Unrealized (losses) on AFS securities transferred to HTM securities	(67,604)	—	(67,604)
Amounts reclassified from accumulated other comprehensive income (loss)			
Investment securities (gains), net	(12)	—	(12)
HTM investment securities, net, at amortized cost	4,381	—	4,381
Personnel expense	—	(163)	(163)
Other expense	—	147	147
Income tax benefit	59,096	4	59,100
Net other comprehensive (loss) during period	(172,460)	(12)	(172,472)
Balance June 30, 2022	$ (177,726)	$ (5,062)	$ (182,788)
Balance December 31, 2020	$ 41,325	$ (28,707)	$ 12,618
Other comprehensive (loss) before reclassifications	(16,002)	—	(16,002)
Amounts reclassified from accumulated other comprehensive income (loss)			
Investment securities losses, net	16	—	16
HTM investment securities, net, at amortized cost	1,163	—	1,163
Personnel expense	—	(74)	(74)
Other expense	—	2,100	2,100
Income tax (expense) benefit	3,574	(506)	3,068
Net other comprehensive income (loss) during period	(11,249)	1,519	(9,729)
Balance June 30, 2021	$ 30,076	$ (27,187)	$ 2,889

($ in Thousands)	AFS Investments Securities	Defined Benefit Pension and Post Retirement Obligations	Accumulated Other Comprehensive Income (Loss)
Balance March 31, 2022	$ (131,968)	$ (5,057)	$ (137,024)
Other comprehensive (loss) before reclassifications	(65,038)	—	(65,038)
Amounts reclassified from accumulated other comprehensive income (loss)			
Investment securities losses, net	8	—	8
HTM investment securities, net, at amortized cost	3,273	—	3,273
Personnel expense	—	(81)	(81)
Other expense	—	74	74
Income tax benefit	15,998	2	16,000
Net other comprehensive (loss) during period	(45,758)	(6)	(45,764)
Balance June 30, 2022	$ (177,726)	$ (5,062)	$ (182,788)
Balance March 31, 2021	$ 23,754	$ (27,947)	$ (4,193)
Other comprehensive income before reclassifications	7,978	—	7,978
Amounts reclassified from accumulated other comprehensive income (loss)			
Investment securities (gains), net	(24)	—	(24)
HTM investment securities, net, at amortized cost	645	—	645
Personnel expense	—	(37)	(37)
Other expense	—	1,050	1,050
Income tax (expense)	(2,277)	(253)	(2,530)
Net other comprehensive income during period	6,322	760	7,082
Balance June 30, 2021	$ 30,076	$ (27,187)	$ 2,889

Table of Contents

Note 17 Revenue from Contracts with Customers

Revenue from contracts with customers is recognized when obligations under the terms of a contract with the Corporation's customer are satisfied. Revenue is measured as the amount of consideration we expect to receive in exchange for transferring goods or providing services. We do not have any material significant payment terms as payment is received at or shortly after the satisfaction of the performance obligation.

The Corporation's disaggregated revenue by major source is presented below:

	Corporate and Commercial Specialty			
	Three Months Ended Jun 30,		Six Months Ended Jun 30,	
($ in Thousands)	2022	2021	2022	2021
Wealth management fees	$ 21,332	$ 22,706	$ 43,735	$ 45,120
Service charges and deposit account fees	3,724	3,859	7,508	7,800
Card-based fees[(a)]	327	295	744	640
Other revenue	658	1,151	1,893	1,814
Noninterest income (in-scope of Topic 606)	$ 26,041	$ 28,010	$ 53,881	$ 55,375
Noninterest income (out-of-scope of Topic 606)[(b)]	13,092	9,271	23,042	23,734
Total noninterest income	$ 39,133	$ 37,281	$ 76,923	$ 79,109

	Community, Consumer, and Business			
	Three Months Ended Jun 30,		Six Months Ended Jun 30,	
($ in Thousands)	2022	2021	2022	2021
Service charges and deposit account fees	$ 12,777	$ 11,683	$ 25,846	$ 22,583
Card-based fees[(a)]	11,135	10,709	20,659	20,123
Other revenue	1,770	2,801	3,632	6,476
Noninterest income (in-scope of Topic 606)	$ 25,683	$ 25,193	$ 50,138	$ 49,181
Noninterest income (out-of-scope of Topic 606)	6,438	7,774	15,189	31,116
Total noninterest income	$ 32,121	$ 32,967	$ 65,327	$ 80,298

	Risk Management and Shared Services			
	Three Months Ended Jun 30,		Six Months Ended Jun 30,	
($ in Thousands)	2022	2021	2022	2021
Service charges and deposit account fees	$ 5	$ 7	$ 8	$ 22
Card-based fees[(a)]	10	5	17	9
Other revenue	(120)	307	(81)	697
Noninterest income (in-scope of Topic 606)	$ (105)	$ 319	$ (56)	$ 728
Noninterest income (out-of-scope of Topic 606)	4,310	2,876	7,731	8,651
Total noninterest income	$ 4,204	$ 3,195	$ 7,675	$ 9,379

	Consolidated Total			
	Three Months Ended Jun 30,		Six Months Ended Jun 30,	
($ in Thousands)	2022	2021	2022	2021
Wealth management fees	$ 21,332	$ 22,706	$ 43,735	$ 45,120
Service charges and deposit account fees	16,506	15,549	33,363	30,404
Card-based fees[(a)]	11,472	11,009	21,421	20,773
Other revenue	2,309	4,258	5,444	8,987
Noninterest income (in-scope of Topic 606)	$ 51,619	$ 53,522	$ 103,963	$ 105,284
Noninterest income (out-of-scope of Topic 606)[(b)]	23,840	19,921	45,962	63,502
Total noninterest income	$ 75,458	$ 73,443	$ 149,925	$ 168,786

(a) Certain card-based fees are out-of-scope of Topic 606.
(b) For the six months ended June 30, 2021, the Corporation recognized a $2 million pre-tax gain on the sale of Whitnell.

Below is a listing of performance obligations for the Corporation's main revenue streams:

Revenue Stream	Noninterest income in-scope of Topic 606
Service charges and deposit account fees	Service charges and deposit account fees consist of monthly service fees (i.e. business analyzed fees and consumer service charges) and other deposit account related fees. The Corporation's performance obligation for monthly service fees is generally satisfied, and the related revenue recognized, over the period in which the service is provided. Other deposit account related fees are largely transactional based, and therefore, the Corporation's performance obligation is satisfied, and related revenue recognized, at a point in time. Payment for service charges and deposit account fees is primarily received immediately or in the following month through a direct charge to customers' accounts.
Card-based fees[(a)]	Card-based fees are primarily comprised of debit and credit card income, ATM fees, and merchant services income. Debit and credit card income is primarily comprised of interchange fees earned whenever the Corporation's debit and credit cards are processed through card payment networks. ATM and merchant fees are largely transactional based, and therefore, the Corporation's performance obligation is satisfied, and related revenue recognized, at a point in time. Payment is typically received immediately or in the following month.
Trust and asset management fees[(b)]	Trust and asset management income is primarily comprised of fees earned from the management and administration of trusts and other customer assets. The Corporation's performance obligation is generally satisfied over time and the resulting fees are recognized monthly, based upon the month-end market value of the assets under management and the applicable fee rate. Payment is generally received a few days after month end through a direct charge to the customers' accounts. The Corporation's performance obligation for these transactional-based services is generally satisfied, and related revenue recognized, at a point in time (i.e., as incurred). Payment is received shortly after services are rendered.
Brokerage and advisory fees[(b)]	Brokerage and advisory fees primarily consist of investment advisory, brokerage, retirement services, and annuities. The Corporation's performance obligation for investment advisory services and retirement services is generally satisfied, and the related revenue recognized, over the period in which the services are provided. The performance obligation for annuities is satisfied upon sale of the annuity, and therefore, the related revenue is primarily recognized at the time of sale. Payment for these services are typically received immediately or in advance of the service.

(a) Certain card-based fees are out-of-scope of Topic 606.
(b) Trust and asset management fees and brokerage and advisory fees are included in wealth management fees.

Note 18 Leases

The Corporation has operating leases for retail and corporate offices, land, and equipment. The Corporation also has a finance lease for retail and corporate offices.

These leases have original terms of 1 year or longer with remaining maturities up to 40 years, some of which include options to extend the lease term. An analysis of the lease options has been completed and any purchase options or optional periods that the Corporation is reasonably likely to extend have been included in the capitalization.

The discount rate used to capitalize the operating leases is the Corporation's FHLB borrowing rate on the date of lease commencement. When determining the rate to discount specific lease obligations, the repayment period and term are considered.

Operating and finance lease costs and cash flows resulting from these leases are presented below:

	Three Months Ended Jun 30,		Six Months Ended Jun 30,	
($ in Thousands)	2022	2021	2022	2021
Operating lease costs	$ 1,926	$ 2,243	$ 3,724	$ 4,483
Finance lease costs	32	19	73	58
Operating lease cash flows	2,327	2,777	4,735	5,740
Finance lease cash flows	37	40	80	80

The lease classifications on the consolidated balance sheets were as follows:

($ in Thousands)	Consolidated Balance Sheets Category	Jun 30, 2022	Dec 31, 2021
Operating lease right-of-use asset	Premises and equipment	$ 26,621	$ 28,299
Finance lease right-of-use asset	Other assets	498	143
Operating lease liability	Accrued expenses and other liabilities	29,627	31,345
Finance lease liability	Other long-term funding	511	163

The lease payment obligations, weighted-average remaining lease term, and weighted-average original discount rate were as follows:

	Jun 30, 2022			Dec 31, 2021		
($ in Thousands)	Lease payments	Weighted-average lease term (in years)	Weighted-average discount rate	Lease payments	Weighted-average lease term (in years)	Weighted-average discount rate
Operating leases						
Equipment	$ 191	1.00	0.44 %	$ 192	1.50	0.45 %
Retail and corporate offices	26,553	5.71	2.28 %	29,008	5.56	3.26 %
Land	5,160	7.93	3.13 %	5,551	8.29	3.12 %
Total operating leases	$ 31,904	6.02	2.41 %	$ 34,751	5.94	3.22 %
Finance leases						
Retail and corporate offices	$ 530	5.75	1.32 %	$ 112	1.25	1.32 %
Land	—	0.00	— %	51	0.67	1.07 %
Total finance leases	$ 530	5.75	1.32 %	$ 164	1.07	1.24 %

Contractual lease payment obligations for each of the next five years and thereafter, in addition to a reconciliation to the Corporation’s lease liability, were as follows:

($ in Thousands)	Operating Leases	Finance Leases	Total Leases
Six months ended December 31, 2022	$ 3,515	$ 45	$ 3,560
2023	6,240	92	6,332
2024	5,650	93	5,742
2025	4,387	93	4,479
2026	3,823	93	3,915
Beyond 2026	8,290	116	8,406
Total lease payments	$ 31,904	$ 530	$ 32,434
Less: interest	2,276	19	2,296
Present value of lease payments	$ 29,627	$ 511	$ 30,138

As of June 30, 2022 and December 31, 2021, additional operating leases, primarily retail and corporate offices, that had not yet commenced totaled $14 million and $13 million, respectively. The leases that had not yet commenced as of June 30, 2022 will commence between July 2022 and October 2023 with lease terms of 1 year to 6 years.

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

Special Note Regarding Forward-Looking Statements

This report contains statements that may constitute forward-looking statements within the meaning of the safe-harbor provisions for forward-looking statements contained in the Private Securities Litigation Reform Act of 1995, such as statements other than historical facts contained or incorporated by reference into this report. These forward-looking statements include statements with respect to the Corporation's financial condition, results of operations, plans, objectives, future performance and business, including statements preceded by, followed by or that include the words "believes," "expects," or "anticipates," references to estimates or similar expressions. Future filings by the Corporation with the SEC, and future statements other than historical facts contained in written material, press releases and oral statements issued by, or on behalf of the Corporation may also constitute forward-looking statements.

All forward-looking statements contained in this report or which may be contained in future statements made for or on behalf of the Corporation are based upon information available at the time the statement is made and the Corporation assumes no obligation to update any forward-looking statements, except as required by federal securities law. Forward-looking statements are subject to significant risks and uncertainties, and the Corporation's actual results may differ materially from the expected results discussed in such forward-looking statements. Factors that might cause actual results to differ from the results discussed in forward-looking statements include, but are not limited to, the risk factors in Item 1A, Risk Factors, in the Corporation's Annual Report on Form 10-K for the year ended December 31, 2021, in the Corporations Quarterly Report on Form 10-Q for the quarter ended March 31, 2022, in Item 1A of Part 2 herein, and as may be described from time to time in the Corporation's subsequent SEC filings.

Overview

The following discussion and analysis is presented to assist in the understanding and evaluation of the Corporation's financial condition and results of operations. It is intended to complement the unaudited consolidated financial statements, footnotes, and supplemental financial data appearing elsewhere in this Quarterly Report on Form 10-Q and should be read in conjunction therewith. Management continually evaluates strategic acquisition opportunities and various other strategic alternatives that could involve the sale or acquisition of branches or other assets, or the consolidation or creation of subsidiaries. Within the tables presented, certain columns and rows may not sum due to the use of rounded numbers for disclosure purposes.

Performance Summary

- Average loans of $24.8 billion increased $472 million, or 2%, compared to the first six months of 2021. For 2022, the Corporation expects commercial loan growth, including asset-based lending and equipment finance, of approximately $1.7 billion and auto finance loan growth of approximately $1.3 billion.

- Average deposits of $28.4 billion increased $1.3 billion, or 5%, from the first six months of 2021, driven primarily by increases in low cost deposits partially offset by decreases in higher cost deposits.

- Net interest income of $404 million increased $48 million, or 14%, from the first six months of 2021, and net interest margin was 2.57% compared to 2.38% for the first six months of 2021. The increase in net interest income was driven by higher loan income in a majority of loan categories and higher investment income resulting from the Federal Reserve increasing the federal funds target interest rate 150 bp during the first six months of 2022. For 2022, the Corporation expects net interest income of more than $890 million, assuming a 75 bp increase in July and a 25 bp increase at each remaining FOMC meeting this year.

- Provision for credit losses had a release of $4 million, compared to a release of $58 million for the first six months of 2021. For 2022, the Corporation expects to adjust provision to reflect changes to risk grades, economic conditions, other indications of credit quality, and loan volume.

- Noninterest income of $150 million decreased $19 million, or 11%, from the first six months of 2021, primarily driven by the $18 million, or 55%, decrease in mortgage banking, net, resulting from decreased gains on sold loans due to lower mortgage settlements, partially offset by an increase of $5 million in mortgage servicing fees, net that was primarily due to lower levels of decay in the MSRs asset as a result of slower prepayment speeds. For 2022, the Corporation expects noninterest income of $290 million to $300 million.

- Noninterest expense of $355 million increased $5 million, or 1%, from the first six months of 2021. For 2022, the Corporation expects noninterest expense will be approximately $730 million to $740 million.

Table 1 Summary Results of Operations: Trends

($ in Thousands, except per share data)	Six months ended Jun 30, 2022	Six months ended Jun 30, 2021	Three months ended Jun 30, 2022	Three months ended Mar 31, 2022	Three months ended Dec 31, 2021	Three months ended Sep 30, 2021	Three months ended Jun 30, 2021
Net income	$ 161,086	$ 185,307	$ 86,824	$ 74,262	$ 76,877	$ 88,809	$ 91,007
Net income available to common equity	155,336	175,226	83,949	71,387	74,002	84,655	86,131
Earnings per common share - basic	1.04	1.14	0.56	0.48	0.49	0.56	0.56
Earnings per common share - diluted	1.03	1.13	0.56	0.47	0.49	0.56	0.56
Effective tax rate	20.69 %	20.26 %	21.20 %	20.07 %	16.48 %	20.61 %	19.81 %

Back to table of contents

Income Statement Analysis

Net Interest Income

Table 2 Net Interest Income Analysis

($ in Thousands)	Six Months Ended Jun 30, 2022 Average Balance	2022 Interest Income / Expense	2022 Average Yield / Rate	2021 Average Balance	2021 Interest Income / Expense	2021 Average Yield / Rate
Assets						
Earning assets						
Loans[(a)(b)(c)]						
Commercial PPP lending	$ 28,818	$ 1,624	11.36 %	$ 753,778	$ 18,949	5.07 %
Asset-based lending (ABL) & equipment finance[(d)]	223,717	3,631	3.27 %	129,461	1,966	3.06 %
Commercial and business lending (excl PPP, ABL and equipment finance)	9,082,412	121,502	2.70 %	8,357,726	106,010	2.56 %
Commercial real estate lending	6,270,743	97,119	3.12 %	6,165,433	88,455	2.89 %
Total commercial	15,605,690	223,876	2.89 %	15,406,399	215,380	2.82 %
Residential mortgage	7,766,296	113,837	2.93 %	7,911,635	110,841	2.80 %
Auto finance	498,175	8,667	3.51 %	9,319	204	4.42 %
Other retail	881,382	22,032	5.02 %	952,621	22,623	4.77 %
Total loans	24,751,542	368,412	2.99 %	24,279,974	349,049	2.89 %
Investment securities						
Taxable	4,406,507	34,789	1.58 %	3,099,322	15,855	1.02 %
Tax-exempt[(a)]	2,405,952	40,933	3.40 %	1,927,169	35,945	3.73 %
Other short-term investments	751,407	4,413	1.18 %	1,381,370	3,521	0.51 %
Investments and other	7,563,866	80,135	2.12 %	6,407,860	55,320	1.73 %
Total earning assets	32,315,408	$ 448,547	2.79 %	30,687,834	$ 404,369	2.65 %
Other assets, net	3,152,445			3,345,982		
Total assets	$ 35,467,853			$ 34,033,816		
Liabilities and Stockholders' Equity						
Interest-bearing liabilities						
Interest-bearing deposits						
Savings	$ 4,606,809	$ 910	0.04 %	$ 3,966,797	$ 689	0.04 %
Interest-bearing demand	6,566,704	4,002	0.12 %	5,796,680	2,234	0.08 %
Money market	6,970,392	3,168	0.09 %	6,928,898	2,082	0.06 %
Network transaction deposits	755,357	1,745	0.47 %	994,016	591	0.12 %
Time deposits	1,284,037	1,766	0.28 %	1,583,725	4,923	0.63 %
Total interest-bearing deposits	20,183,299	11,591	0.12 %	19,270,116	10,519	0.11 %
Federal funds purchased and securities sold under agreements to repurchase	374,661	444	0.24 %	146,941	55	0.08 %
Commercial paper	25,545	2	0.01 %	49,026	13	0.05 %
FHLB advances	2,019,622	17,871	1.78 %	1,626,114	19,017	2.36 %
Long-term funding	249,719	5,460	4.37 %	549,402	11,160	4.06 %
Total short and long-term funding	2,669,547	23,776	1.79 %	2,371,483	30,245	2.56 %
Total interest-bearing liabilities	22,852,845	$ 35,367	0.31 %	21,641,598	$ 40,764	0.38 %
Noninterest-bearing demand deposits	8,224,440			7,869,320		
Other liabilities	428,752			405,519		
Stockholders' equity	3,961,816			4,117,378		
Total liabilities and stockholders' equity	$ 35,467,853			$ 34,033,816		
Interest rate spread			2.48 %			2.27 %
Net free funds			0.09 %			0.11 %
Fully tax-equivalent net interest income and net interest margin ("NIM")		$ 413,179	2.57 %		$ 363,605	2.38 %
Fully tax-equivalent adjustment		9,286			8,189	
Net interest income		$ 403,893			$ 355,416	

(a) The yield on tax-exempt loans and securities is computed on a fully tax-equivalent basis using a tax rate of 21% and is net of the effects of certain disallowed interest deductions.
(b) Nonaccrual loans and loans held for sale have been included in the average balances.
(c) Interest income includes amortization of net deferred loan origination costs and net accreted purchase loan discount.
(d) Periods prior to March 31, 2022 do not include equipment finance.

Table 2 Net Interest Income Analysis

	Three Months Ended								
	Jun 30, 2022			Mar 31, 2022			Jun 30, 2021		
($ in Thousands)	Average Balance	Interest Income / Expense	Average Yield / Rate	Average Balance	Interest Income / Expense	Average Yield / Rate	Average Balance	Interest Income / Expense	Average Yield / Rate
Assets									
Earning assets									
Loans[(a)(b)(c)]									
Commercial PPP lending	$ 14,026	$ 346	9.91 %	$ 43,774	$ 1,277	11.83 %	$ 701,440	$ 10,048	5.75 %
Asset-based lending (ABL) & equipment finance[(d)]	244,369	2,181	3.58 %	202,836	1,449	2.90 %	121,153	894	2.96 %
Commercial and business lending (excl PPP, ABL and equipment finance)	9,346,218	68,748	2.95 %	8,815,676	52,754	2.43 %	8,316,472	52,992	2.56 %
Commercial real estate lending	6,363,395	53,233	3.36 %	6,177,062	43,886	2.88 %	6,159,728	44,139	2.87 %
Total commercial	15,968,007	124,509	3.13 %	15,239,348	99,366	2.64 %	15,298,792	108,073	2.83 %
Residential mortgage	7,860,220	58,434	2.97 %	7,671,329	55,403	2.89 %	7,861,139	55,337	2.82 %
Auto finance	689,027	6,017	3.50 %	305,202	2,649	3.52 %	8,458	93	4.42 %
Other retail	880,910	11,370	5.17 %	881,859	10,662	4.87 %	930,224	11,104	4.78 %
Total loans	25,398,163	200,331	3.16 %	24,097,738	168,081	2.81 %	24,098,614	174,607	2.90 %
Investment securities									
Taxable	4,448,811	18,317	1.65 %	4,363,733	16,472	1.51 %	3,220,825	8,840	1.10 %
Tax-exempt[(a)]	2,427,068	20,637	3.40 %	2,384,601	20,296	3.40 %	1,953,696	18,101	3.71 %
Other short-term investments	352,310	2,420	2.75 %	1,154,939	1,993	0.70 %	1,766,615	1,826	0.41 %
Investments and other	7,228,189	41,374	2.29 %	7,903,273	38,761	1.96 %	6,941,135	28,767	1.66 %
Total earning assets	32,626,351	$241,705	2.97 %	32,001,010	$206,842	2.60 %	31,039,749	$203,375	2.62 %
Other assets, net	3,106,232			3,199,172			3,339,898		
Total assets	$ 35,732,583			$ 35,200,182			$ 34,379,647		
Liabilities and Stockholders' equity									
Interest-bearing liabilities									
Interest-bearing deposits									
Savings	$ 4,682,783	$ 530	0.05 %	$ 4,529,991	$ 380	0.03 %	$ 4,121,553	$ 357	0.03 %
Interest-bearing demand	6,413,077	2,977	0.19 %	6,722,038	1,025	0.06 %	5,879,173	1,057	0.07 %
Money market	6,910,505	2,203	0.13 %	7,030,945	965	0.06 %	6,981,482	1,023	0.06 %
Network transaction deposits	775,593	1,480	0.77 %	734,895	265	0.15 %	908,869	264	0.12 %
Time deposits	1,255,292	829	0.26 %	1,313,101	937	0.29 %	1,509,705	1,909	0.51 %
Total interest-bearing deposits	20,037,250	8,019	0.16 %	20,330,970	3,571	0.07 %	19,400,781	4,609	0.10 %
Federal funds purchased and securities sold under agreements to repurchase	454,519	406	0.36 %	293,915	38	0.05 %	157,619	30	0.08 %
Commercial paper	23,154	1	0.01 %	27,963	1	0.01 %	55,209	7	0.05 %
FHLB advances	2,423,771	9,689	1.60 %	1,610,983	8,182	2.06 %	1,620,397	9,524	2.36 %
Long-term funding	249,805	2,730	4.37 %	249,632	2,730	4.38 %	549,222	5,575	4.06 %
Total short and long-term funding	3,151,249	12,826	1.63 %	2,182,492	10,951	2.03 %	2,382,446	15,136	2.55 %
Total interest-bearing liabilities	23,188,499	$ 20,845	0.36 %	22,513,462	$ 14,522	0.26 %	21,783,227	$ 19,745	0.36 %
Noninterest-bearing demand deposits	8,133,492			8,316,399			8,069,851		
Other liabilities	473,478			383,528			395,950		
Stockholders' Equity	3,937,114			3,986,792			4,130,618		
Total liabilities and stockholders' equity	$ 35,732,583			$ 35,200,182			$ 34,379,647		
Interest rate spread			2.61 %			2.34 %			2.26 %
Net free funds			0.10 %			0.08 %			0.11 %
Fully tax-equivalent net interest income and net interest margin ("NIM")		$220,860	2.71 %		$192,320	2.42 %		$183,629	2.37 %
Fully tax-equivalent adjustment		4,713			4,573			4,115	
Net interest income		$216,146			$187,747			$179,515	

(a) The yield on tax-exempt loans and securities is computed on a fully tax-equivalent basis using a tax rate of 21% and is net of the effects of certain disallowed interest deductions.
(b) Nonaccrual loans and loans held for sale have been included in the average balances.
(c) Interest income includes amortization of net deferred loan origination costs and net accreted purchase loan discount.
(d) Periods prior to March 31, 2022 do not include equipment finance.

Notable Contributions to the Change in Net Interest Income

- Fully tax-equivalent net interest income and net interest income were $50 million, or 14%, and $48 million, or 14%, higher than the first six months of 2021, respectively. Average investments and other short-term investments increased $1.2 billion, or 18%. The increase in net interest income was driven by higher loan income in a majority of loan categories and higher investment income resulting from the Federal Reserve increasing the federal funds target interest rate 150 bp during the first six months of 2022, which resulted in the yield on earning assets increasing by 14 bp. Additionally, interest bearing liabilities costs decreased from the first six months of 2021. See sections Interest Rate Risk and Quantitative and Qualitative Disclosures about Market Risk for a discussion of interest rate risk and market risk.
- Average interest-bearing liabilities were up $1.2 billion, or 6%, compared to the first six months of 2021. Interest-bearing deposits increased $913 million, or 5%, primarily driven by an increase in low cost deposits partially offset by decreases in higher cost deposits. Average noninterest-bearing demand deposits were up $355 million, or 5%, versus the first six months of 2021. The cost of interest-bearing liabilities decreased 7 bp from the first six months of 2021, primarily attributable to a favorable mix with lower cost core deposit balances and lower cost short term FHLB advances increasing and higher cost deposits and long-term funding decreasing.

Provision for Credit Losses

The provision for credit losses is predominantly a function of the Corporation’s reserving methodology and judgments as to other qualitative and quantitative factors used to determine the appropriate level of the ACLL, which focuses on changes in the size and character of the loan portfolio, changes in levels of individually evaluated and other nonaccrual loans, historical losses and delinquencies in each portfolio category, the risk inherent in specific loans, concentrations of loans to specific borrowers or industries, existing economic conditions and economic forecasts, the fair value of underlying collateral, and other factors which could affect potential credit losses. The forecast the Corporation used for June 30, 2022 was the Moody's baseline forecast from May 2022 which was reviewed against the June 2022 forecast for material updates, over a 2 year reasonable and supportable period with straight-line reversion to historical losses over the second year of the period. See additional discussion under the sections titled, Loans, Credit Risk, Nonperforming Assets, and Allowance for Credit Losses on Loans.

Noninterest Income

Table 3 Noninterest Income

($ in Thousands, except as noted)	Six months ended Jun 30, 2022	Six months ended Jun 30, 2021	YTD % Change	Three months ended Jun 30, 2022	Three months ended Mar 31, 2022	Three months ended Dec 31, 2021	Three months ended Sep 30, 2021	Three months ended Jun 30, 2021	Changes vs Mar 31, 2022	Changes vs Jun 30, 2021
Wealth management fees[a]	$ 43,735	$ 45,120	(3)%	$ 21,332	$ 22,404	$ 22,625	$ 22,110	$ 22,706	(5)%	(6)%
Service charges and deposit account fees	33,363	30,404	10 %	16,506	16,856	17,039	16,962	15,549	(2)%	6 %
Card-based fees	21,368	20,725	3 %	11,442	9,926	11,176	11,113	10,982	15 %	4 %
Other fee-based revenue	8,126	8,840	(8)%	4,360	3,766	4,316	3,929	4,244	16 %	3 %
Total fee-based revenue	106,592	105,089	1 %	53,641	52,952	55,157	54,113	53,480	1 %	— %
Capital markets, net	16,656	13,814	21 %	8,010	8,646	9,674	7,114	5,696	(7)%	41 %
Mortgage servicing fees, net[b]	3,712	(1,552)	N/M	1,882	1,830	795	323	(155)	3 %	N/M
Gains and fair value adjustments on loans held for sale	421	23,367	(98)%	(363)	785	3,290	8,341	8,623	N/M	N/M
Changes in mortgage servicing rights valuation, net of economic hedge[c]	10,403	10,239	2 %	4,627	5,776	3,955	1,993	(340)	(20)%	N/M
Mortgage banking, net	14,536	32,054	(55)%	6,145	8,391	8,041	10,657	8,128	(27)%	(24)%
Bank and corporate owned life insurance	6,177	5,791	7 %	4,106	2,071	4,704	2,760	3,088	98 %	33 %
Other	4,086	6,221	(34)%	1,888	2,198	2,941	2,205	3,004	(14)%	(37)%
Subtotal	148,048	162,968	(9)%	73,790	74,258	80,517	76,848	73,397	(1)%	1 %
Asset gains (losses), net	1,865	4,796	(61)%	1,677	188	985	5,228	(14)	N/M	N/M
Investment securities gains(losses), net	12	(16)	N/M	(8)	21	—	—	24	N/M	N/M
Gain on the sale of branches, net[d]	—	1,038	(100)%	—	—	—	—	36	N/M	(100)%
Total noninterest income	$149,925	$168,786	(11)%	$ 75,458	$ 74,467	$ 81,502	$ 82,076	$ 73,443	1 %	3 %
Mortgage loans originated for sale during period	$403,951	$889,315	(55)%	$151,838	$252,113	$404,398	$455,842	$476,670	(40)%	(68)%
Mortgage loan settlements during period	500,410	884,581	(43)%	204,321	296,089	426,785	463,425	484,446	(31)%	(58)%
Assets under management, at market value[e]				11,561	12,937	13,679	13,148	13,141	(11)%	(12)%

N/M = Not Meaningful
(a) Includes trust, asset management, brokerage, and annuity fees.
(b) Includes mortgage origination and servicing fees, net of MSRs amortization/decay.
(c) On January 1, 2022, the Corporation made the irrevocable election to account for MSRs at fair value. For all prior periods, MSRs were carried at LOCOM.
(d) Includes the deposit premium on the sale of branches net of miscellaneous costs to sell. See Note 2 Acquisitions and Dispositions of the notes to the consolidated financial statements for additional details on the branch sales.
(e) $ in millions. Excludes assets held in brokerage accounts.

Notable Contributions to the Change in Noninterest Income

- Mortgage banking, net decreased $18 million from the first six months of 2021, driven by decreased gains on sold loans due to lower mortgage settlements offset partially by an increase in mortgage servicing fees, net of $5 million primarily due to lower levels of decay in the MSRs asset as a result of slower prepayment speeds.

- Service charges and deposit account fees increased $3 million from the first six months of 2021 as a result of higher overdraft and non-sufficient funds fees. On July 20, 2022, the Corporation eliminated non-sufficient funds fees, overdraft protection transfer fees, and continuous overdraft fees and reduced the daily limit of overdraft fee occurrences from 4 to 2.

- Capital markets, net increased $3 million from the first six months of 2021 as a result of higher interest rate swap revenue.

- Asset gains (losses), net decreased $3 million from the first six months of 2021, due to a gain of $2 million from the sale of Whitnell and higher gains from private equity investments during the first six months of 2021.

Noninterest Expense

Table 4 Noninterest Expense

($ in Thousands)	Six months ended Jun 30, 2022	Six months ended Jun 30, 2021	YTD % Change	Three months ended Jun 30, 2022	Three months ended Mar 31, 2022	Three months ended Dec 31, 2021	Three months ended Sep 30, 2021	Three months ended Jun 30, 2021	Change vs Mar 31, 2022	Change vs Jun 30, 2021
Personnel	$ 217,477	$ 211,020	3 %	$ 112,666	$ 104,811	$ 107,787	$ 107,880	$ 106,994	7 %	5 %
Technology	42,707	40,975	4 %	21,223	21,485	20,787	19,927	20,236	(1)%	5 %
Occupancy	30,231	30,835	(2)%	14,151	16,080	16,863	15,814	14,679	(12)%	(4)%
Business development and advertising	10,610	9,366	13 %	5,655	4,954	5,627	6,156	4,970	14 %	14 %
Equipment	9,920	10,999	(10)%	4,960	4,960	4,905	5,200	5,481	— %	(10)%
Legal and professional	9,960	13,191	(24)%	4,873	5,087	4,428	4,304	6,661	(4)%	(27)%
Loan and foreclosure costs	3,490	4,891	(29)%	1,476	2,014	1,636	1,616	2,671	(27)%	(45)%
FDIC assessment	10,500	8,350	26 %	5,400	5,100	4,800	5,000	3,600	6 %	50 %
Other intangible amortization	4,405	4,439	(1)%	2,203	2,203	2,203	2,203	2,203	— %	— %
Other	15,412	15,755	(2)%	8,815	6,597	13,173	9,793	6,979	34 %	26 %
Total noninterest expense	$ 354,712	$ 349,821	1 %	$ 181,420	$ 173,292	$ 182,210	$ 177,892	$ 174,475	5 %	4 %
Average FTEs[a]	4,060	4,005	1 %	4,101	4,018	3,992	4,010	3,990	2 %	3 %

(a) Average FTEs without overtime

Notable Contributions to the Change in Noninterest Expense

- Personnel expense increased $6 million from the first six months of 2021, largely as a result of increased FTEs due to hiring related to previously announced initiatives.
- Legal and professional expenses decreased $3 million from the first six months of 2021 as a result of lower consulting costs associated with mortgage activity.

Income Taxes

The Corporation recognized income tax expense of $42 million for the six months ended June 30, 2022, compared to income tax expense of $47 million for the six months ended June 30, 2021. The Corporation's effective tax rate was 20.69% for the first six months of 2022, compared to an effective tax rate of 20.26% for the first six months of 2021. The decrease in income tax expense during the first six months of 2022 was primarily driven by a decrease in income before tax. The increase in the effective tax rate was primarily driven by an increase in state tax expense. The Corporation expects a full year effective tax rate of approximately 21%, assuming no change in the statutory corporate tax rate.

Income tax expense recorded on the consolidated statements of income involves the interpretation and application of certain accounting pronouncements and federal and state tax laws and regulations. The Corporation is subject to examination by various taxing authorities. Examination by taxing authorities may impact the amount of tax expense and/or the reserve for uncertainty in income taxes if their interpretations differ from those of management, based on their judgments about information available to them at the time of their examinations.

Balance Sheet Analysis

- At June 30, 2022, total assets were $37.2 billion, up $2.1 billion, or 6%, from December 31, 2021 and up $3.1 billion, or 9%, from June 30, 2021.
- Interest bearing deposits in other financial institutions were $437 million at June 30, 2022, down $245 million, or 36%, from December 31, 2021 and down $903 million, or 67%, from June 30, 2021, due to the deployment of excess liquidity into investment securities purchases and loan growth.
- AFS investment securities, at fair value were $2.7 billion at June 30, 2022, down $1.7 billion, or 38%, from December 31, 2021, and down $646 million, or 19%, from June 30, 2021. HTM investment securities, net, at amortized cost were $3.9 billion at June 30, 2022, up $1.7 billion, or 76%, from December 31, 2021 and up $2.1 billion, or 119%, from June 30, 2021, driven by the deployment of cash into higher yielding assets and a $1.6 billion transfer of AFS investment securities, at fair value, to HTM investment securities, net, at amortized cost during the first quarter of 2022. See Note 6 Investment Securities of the notes to consolidated financial statements for additional details.
- Loans of $26.5 billion at June 30, 2022 were up $2.3 billion, or 9%, from December 31, 2021 and up $2.5 billion, or 11%, from June 30, 2021. See Note 7 Loans of the notes to consolidated financial statements for additional details.
- At June 30, 2022, total deposits of $28.6 billion were up $110 million from December 31, 2021 and were up $1.3 billion, or 5%, from June 30, 2021. See section Deposits and Customer Funding for additional information on deposits.
- Other long-term funding was $250 million at June 30, 2022 and $249 million at December 31, 2021, and was down $299 million, or 54%, from June 30, 2021, primarily driven by the redemption of the Bank's senior notes on July 13, 2021.
- FHLB advances were $3.3 billion at June 30, 2022, up $1.6 billion, or 101%, from both December 31, 2021 and June 30, 2021, and federal funds purchased and securities sold under agreements to repurchase were $683 million at June 30, 2022, up $363 million, or 114%, from December 31, 2021, and up $512 million from June 30, 2021, mainly due to loan growth. See Note 9 Short and Long-Term Funding of the notes to consolidated financial statements for additional details.
- Preferred equity was $193 million at both June 30, 2022 and December 31, 2021, and was down $97 million, or 33%, from June 30, 2021, as a result of the redemption of the Corporation's Series D Preferred Stock during the third quarter of 2021.

Loans

Table 5 Period End Loan Composition

	Jun 30, 2022		Mar 31, 2022		Dec 31, 2021		Sep 30, 2021		Jun 30, 2021	
($ in Thousands)	Amount	% of Total	Amount	% of Total	Amount	% of Total	Amount	% of Total	Amount	% of Total
PPP	$ 9,514	— %	$ 17,995	— %	$ 66,070	— %	$ 182,121	1 %	$ 405,482	2 %
Asset-based lending & equipment finance[(a)]	263,044	1 %	231,040	1 %	178,027	1 %	111,027	— %	105,726	— %
Commercial and industrial	8,984,127	34 %	8,102,380	33 %	8,208,289	34 %	7,816,432	33 %	7,803,393	33 %
Commercial real estate — owner occupied	928,152	4 %	973,572	4 %	971,326	4 %	879,554	4 %	880,755	4 %
Commercial and business lending	10,184,836	38 %	9,324,986	38 %	9,423,711	39 %	8,989,133	38 %	9,195,355	38 %
Commercial real estate — investor	4,790,241	18 %	4,469,241	18 %	4,384,569	18 %	4,296,489	18 %	4,300,651	18 %
Real estate construction	1,775,648	7 %	1,760,076	7 %	1,808,976	7 %	1,834,871	8 %	1,880,897	8 %
Commercial real estate lending	6,565,889	25 %	6,229,317	25 %	6,193,545	26 %	6,131,360	26 %	6,181,549	26 %
Total commercial	16,750,726	63 %	15,554,303	63 %	15,617,256	64 %	15,120,493	64 %	15,376,904	64 %
Residential mortgage	8,002,943	30 %	7,609,343	31 %	7,567,310	31 %	7,590,895	32 %	7,638,372	32 %
Auto finance	847,969	3 %	497,523	2 %	143,045	1 %	6,739	— %	7,817	— %
Home equity	592,843	2 %	580,867	2 %	595,615	2 %	608,566	3 %	631,783	3 %
Other consumer	300,217	1 %	289,889	1 %	301,723	1 %	294,979	1 %	292,660	1 %
Total consumer	9,743,972	37 %	8,977,622	37 %	8,607,693	36 %	8,501,180	36 %	8,570,632	36 %
Total loans	$ 26,494,698	100 %	$ 24,531,926	100 %	$ 24,224,949	100 %	$ 23,621,673	100 %	$ 23,947,536	100 %

(a) Periods prior to March 31, 2022 do not include equipment finance.

The Corporation has long-term guidelines relative to the proportion of Commercial and Business, CRE, and Consumer loan commitments within the overall loan portfolio, with each targeted to represent 30 to 40% of the overall loan portfolio. The targeted long-term guidelines were unchanged during 2021 and the first six months of 2022. Furthermore, certain sub-asset classes within the respective portfolios are further defined and dollar limitations are placed on these sub-portfolios. These guidelines and limits are reviewed quarterly and approved annually by the Enterprise Risk Committee of the Corporation's Board of Directors. These guidelines and limits are designed to create balance and diversification within the loan portfolios.

The Corporation’s loan distribution and interest rate sensitivity as of June 30, 2022 are summarized in the following table:

Table 6 Loan Distribution and Interest Rate Sensitivity

($ in Thousands)	Within 1 Year[(a)]	1-5 Years	5-15 Years	Over 15 Years	Total	% of Total
PPP	$ 762	$ 8,752	$ —	$ —	$ 9,514	— %
Asset-based lending & equipment finance	172,885	45,130	45,029	—	263,044	1 %
Commercial and industrial	8,403,145	450,789	105,220	24,972	8,984,127	34 %
Commercial real estate — owner occupied	523,377	292,090	111,254	1,430	928,152	4 %
Commercial real estate — investor	4,394,743	250,521	143,394	1,583	4,790,241	18 %
Real estate construction	1,717,452	45,392	3,543	9,261	1,775,648	7 %
Commercial - adjustable	9,083,007	100,371	12,127	8,660	9,204,165	35 %
Commercial - fixed	6,129,357	992,305	396,314	28,586	7,546,561	28 %
Residential mortgage - adjustable	324,248	628,309	1,573,688	155,750	2,681,995	10 %
Residential mortgage - fixed	35,061	81,033	254,987	4,949,868	5,320,948	20 %
Auto finance	288	20,490	827,191	—	847,969	3 %
Home equity	545,872	16,283	13,367	17,321	592,843	2 %
Other consumer	173,190	48,276	36,700	42,050	300,217	1 %
Total loans	$ 16,291,022	$ 1,887,067	$ 3,114,374	$ 5,202,234	$ 26,494,698	100 %
Fixed-rate	$ 6,232,983	$ 1,153,906	$ 697,833	$ 5,019,768	$ 13,104,489	49 %
Floating or adjustable rate	10,058,040	733,161	2,416,542	182,466	13,390,209	51 %
Total	$ 16,291,022	$ 1,887,067	$ 3,114,374	$ 5,202,234	$ 26,494,698	100 %

(a) Demand loans, past due loans, overdrafts, and credit cards are reported in the “Within 1 Year” category.

At June 30, 2022, $19.6 billion, or 74%, of the loans outstanding and $15.3 billion, or 92%, of the commercial loans outstanding were floating rate, adjustable rate, re-pricing within one year, or maturing within one year.

Credit Risk

An active credit risk management process is used for commercial loans to ensure that sound and consistent credit decisions are made. Credit risk is controlled by detailed underwriting procedures, comprehensive loan administration, and periodic review of borrowers’ outstanding loans and commitments. Borrower relationships are formally reviewed and graded on an ongoing basis for early identification of potential problems. Further analysis by customer, industry, and geographic location are performed to monitor trends, financial performance, and concentrations. See Note 7 Loans of the notes to consolidated financial statements for additional information on managing overall credit quality.

The loan portfolio is widely diversified by types of borrowers, industry groups, and market areas within the Corporation's branch footprint. Significant loan concentrations are considered to exist when there are amounts loaned to numerous borrowers engaged in similar activities that would cause them to be similarly impacted by economic or other conditions. At June 30, 2022, no significant concentrations existed in the Corporation’s portfolio in excess of 10% of total loan exposure.

Commercial and business lending: The commercial and business lending classification primarily includes commercial loans to large corporations, middle market companies, small businesses, and lease financing.

Table 7 Largest Commercial and Industrial Industry Group Exposures, by NAICS Subsector

June 30, 2022	NAICS Subsector	Outstanding Balance	Total Exposure	% of Total Loan Exposure
Real Estate[(a)]	531	$ 1,725,081	$ 3,160,552	8 %
Credit Intermediation and Related Activities[(b)]	522	1,037,994	2,511,829	7 %
Utilities[(c)]	221	2,100,956	2,383,329	6 %
Merchant Wholesalers, Durable Goods	423	453,912	769,019	2 %

(a) Includes REIT lines
(b) Includes mortgage warehouse lines
(c) 55% of the total exposure supports wind and solar projects

The remaining commercial and industrial portfolio is spread over a diverse range of industries, none of which exceed 2% of total loan exposure.

The CRE-owner occupied portfolio is spread over a diverse range of industries, none of which exceed 2% of total loan exposure.

The credit risk related to commercial loans is largely influenced by general economic conditions and the resulting impact on a borrower’s operations or on the value of underlying collateral, if any.

Commercial real estate - investor: CRE-investor is comprised of loans secured by various non-owner occupied or investor income producing property types.

Table 8 Largest Commercial Real Estate Investor Property Type Exposures

June 30, 2022	% of Total Loan Exposure	% of Total Commercial Real Estate - Investor Loan Exposure
Multi-Family	4 %	32 %
Office	3 %	24 %
Industrial	3 %	22 %

The remaining CRE-investor portfolio is spread over various other property types, none of which exceed 2% of total loan exposure.

Credit risk is managed in a similar manner to commercial and business lending by employing sound underwriting guidelines, lending primarily to borrowers in local markets and businesses, periodically evaluating the underlying collateral, and formally reviewing the borrower's financial soundness and relationship on an ongoing basis.

Real estate construction: Real estate construction loans are primarily short-term or interim loans that provide financing for the acquisition or development of commercial income properties, multi-family projects, or residential development, both single family and condominium. Real estate construction loans are made to developers and project managers who are generally well known to the Corporation and have prior successful project experience. The credit risk associated with real estate construction loans is generally confined to specific geographic areas but is also influenced by general economic conditions. The Corporation controls the credit risk on these types of loans by making loans in familiar markets to developers, reviewing the merits of individual projects, controlling loan structure, and monitoring project progress and construction advances.

Table 9 Largest Real Estate Construction Property Type Exposures

June 30, 2022	% of Total Loan Exposure	% of Total Real Estate Construction Loan Exposure
Multi-Family	4 %	35 %
Single Family	3 %	24 %
Industrial	3 %	22 %

The remaining real estate construction portfolio is spread over various other property types, none of which exceed 2% of total loan exposure.

The Corporation's current lending standards for CRE and real estate construction lending are determined by property type and specifically address many criteria, including: maximum loan amounts, maximum LTV, requirements for pre-leasing and / or presales, minimum borrower equity, and maximum loan-to-cost. Currently, the maximum standard for LTV is 80%, with lower limits established for certain higher risk types, such as raw land that has a 50% LTV maximum. The Corporation's LTV guidelines are in compliance with regulatory supervisory limits. In most cases, for real estate construction loans, the loan amounts include interest reserves, which are built into the loans and sized to fund loan payments through construction and lease up and / or sell out.

Residential mortgages: Residential mortgage loans are primarily first lien home mortgages with a maximum loan-to-collateral value without credit enhancement (e.g. private mortgage insurance) of 80%. The residential mortgage portfolio is focused primarily in the Corporation's three-state branch footprint, with approximately 87% of the outstanding loan balances in the Corporation's branch footprint at June 30, 2022. The rates on adjustable rate mortgages adjust based upon the movement in the underlying index which is then added to a margin and rounded to the nearest 0.125%. That result is then subjected to any periodic caps to produce the borrower's interest rate for the coming term. Most of the adjustable rate mortgages have an initial fixed rate term of 3, 5, 7 or 10 years.

The Corporation generally retains certain fixed-rate residential real estate mortgages in its loan portfolio, including retail and private banking jumbo mortgages and CRA-related mortgages. As part of management's historical practice of originating and servicing residential mortgage loans, generally the Corporation's 30 year, agency conforming, fixed-rate residential real estate mortgage loans have been sold in the secondary market with servicing rights retained. Subject to management's analysis of the current interest rate environment, among other market factors, the Corporation may choose to retain mortgage loan production on its balance sheet. See section Loans for additional information on loans.

The Corporation's underwriting and risk-based pricing guidelines for residential mortgage loans include minimum borrower FICO score and maximum LTV of the property securing the loan. Residential mortgage products generally are underwritten using FHLMC and FNMA secondary marketing guidelines.

Home equity: Home equity consists of both home equity lines of credit and closed-end home equity loans. The Corporation's credit risk monitoring guidelines for home equity are based on an ongoing review of loan delinquency status, as well as a quarterly review of FICO score deterioration and property devaluation. The Corporation does not routinely obtain appraisals on performing loans to update LTV ratios after origination; however, the Corporation monitors the local housing markets by reviewing the various home price indices and incorporates the impact of the changing market conditions in its ongoing credit monitoring process. For junior lien home equity loans, the Corporation is unable to track the performance of the first lien loan if it does not own or service the first lien loan. However, the Corporation obtains a refreshed FICO score on a quarterly basis and monitors this as part of its assessment of the home equity portfolio.

The Corporation's underwriting and risk-based pricing guidelines for home equity lines of credit and loans consist of a combination of both borrower FICO score and the original cumulative LTV against the property securing the loan. Currently, the Corporation's policy sets the maximum acceptable LTV at 90%. The Corporation's current home equity line of credit offering is priced based on floating rate indices and generally allows 10 years of interest-only payments followed by a 20-year amortization of the outstanding balance. The loans in the Corporation's portfolio generally have an original term of 20 years with principal and interest payments required. See section Loans for additional information on loans.

Indirect Auto: The Corporation currently purchases retail auto sales contracts via a network of approved auto dealerships across 13 states throughout the Northeast, Mid-Atlantic and Midwestern United States. The auto dealerships finance the sale of automobiles as the initial lender and then assign the contracts to the Corporation pursuant to dealer agreements. The Corporation's underwriting and pricing guidelines are based on a dual risk grade derived from a combination of FICO auto score and proprietary internal custom score. Minimum grade and FICO score standards ensure the credit risk is appropriately managed to the Corporation's risk appetite. Further, the grade influences loan-specific parameters such as vehicle age, term, LTV, loan amount, mileage, payment and debt service thresholds, and pricing. Maximum loan terms offered are 84 months on select grades with vehicle age, mileage, and other limitations in place to qualify. The program is designed to capture primarily prime and super prime contracts. Over time, the Corporation expects roughly 60% of originations to be secured by used vehicles.

Other consumer: Other consumer consists of student loans, short-term personal installment loans, and credit cards. The Corporation had $91 million and $101 million of student loans at June 30, 2022 and December 31, 2021, respectively, the majority of which are government guaranteed. Currently, there is federal student loan relief in effect through August 31, 2022. Credit risk for non-government guaranteed student loans, short-term personal installment loans, and credit cards is influenced by general economic conditions, the characteristics of individual borrowers, and the nature of the loan collateral. Risks of loss are generally on smaller average balances per loan spread over many borrowers. Once charged off, there is usually less opportunity for recovery of these smaller consumer loans. Credit risk is primarily controlled by reviewing the creditworthiness of the borrowers, monitoring payment histories, and taking appropriate collateral and guarantee positions. The student loan portfolio is in run-off and no new student loans are being originated.

Nonperforming Assets

Management is committed to a proactive nonaccrual and problem loan identification philosophy. This philosophy is implemented through the ongoing monitoring and review of all pools of risk in the loan portfolio to ensure that problem loans are identified quickly and the risk of loss is minimized. Table 10 provides detailed information regarding NPAs, which include nonaccrual loans, OREO, and repossessed assets:

Table 10 Nonperforming Assets

($ in Thousands)	Jun 30, 2022	Mar 31, 2022	Dec 31, 2021	Sep 30, 2021	Jun 30, 2021
Nonperforming assets					
PPP	$ —	$ 41	$ 46	$ —	$ —
Commercial and industrial	843	225	6,233	8,497	18,380
Commercial real estate — owner occupied	—	—	—	7	7
Commercial and business lending	843	266	6,279	8,504	18,387
Commercial real estate — investor	46,823	80,886	60,677	61,504	63,003
Real estate construction	604	609	177	247	247
Commercial real estate lending	47,427	81,495	60,855	61,751	63,250
Total commercial	48,270	81,761	67,134	70,256	81,637
Residential mortgage	52,840	53,827	55,362	56,678	56,795
Auto finance	53	49	52	67	56
Home equity	7,100	7,490	7,726	7,838	8,517
Other consumer	83	95	170	222	131
Total consumer	60,075	61,460	63,309	64,806	65,498
Total nonaccrual loans	108,345	143,221	130,443	135,062	147,135
Commercial real estate owned	957	861	984	1,005	1,318
Residential real estate owned	3,042	2,209	3,666	2,126	2,438
Bank properties real estate owned[(a)]	13,880	15,123	24,969	30,724	20,244
OREO	17,879	18,194	29,619	33,855	24,000
Repossessed assets	102	—	—	—	—
Total nonperforming assets	$ 126,327	$ 161,414	$ 160,062	$ 168,917	$ 171,135
Accruing loans past due 90 days or more					
Commercial	$ 133	$ 125	$ 151	$ 98	$ 203
Consumer	1,422	1,470	1,111	932	1,099
Total accruing loans past due 90 days or more	$ 1,555	$ 1,595	$ 1,263	$ 1,029	$ 1,302
Restructured loans (accruing)					
Commercial	$ 15,425	$ 10,127	$ 22,763	$ 25,582	$ 26,353
Consumer	18,828	19,876	19,768	18,917	15,582
Total restructured loans (accruing)	$ 34,253	$ 30,003	$ 42,530	$ 44,499	$ 41,935
Nonaccrual restructured loans (included in nonaccrual loans)	$ 22,172	$ 19,352	$ 17,426	$ 15,226	$ 17,237
Ratios					
Nonaccrual loans to total loans	0.41 %	0.58 %	0.54 %	0.57 %	0.61 %
NPAs to total loans plus OREO and repossessed assets	0.48 %	0.66 %	0.66 %	0.71 %	0.71 %
NPAs to total assets	0.34 %	0.46 %	0.46 %	0.49 %	0.50 %
Allowance for credit losses on loans to nonaccrual loans	293.09 %	221.92 %	245.16 %	246.02 %	247.45 %

Table 10 Nonperforming Assets (continued)

($ in Thousands)	Jun 30, 2022	Mar 31, 2022	Dec 31, 2021	Sep 30, 2021	Jun 30, 2021
Accruing loans 30-89 days past due					
PPP	$ 1,475	$ 1	$ 83	$ 568	$ —
Commercial and industrial	167	1,085	632	1,229	258
Commercial real estate — owner occupied	—	198	163	30	47
Commercial and business lending	1,642	1,284	878	1,827	306
Commercial real estate — investor	5,484	—	616	17,021	391
Real estate construction	—	—	1,620	—	117
Commercial real estate lending	5,484	—	2,236	17,021	509
Total commercial	7,126	1,284	3,114	18,848	814
Residential mortgage	5,315	4,957	6,169	7,095	5,015
Auto finance	2,906	949	11	10	38
Home equity	2,961	4,207	3,711	2,931	2,472
Other consumer	1,365	1,232	2,307	1,272	1,036
Total consumer	12,547	11,345	12,198	11,308	8,562
Total accruing loans 30-89 days past due	$ 19,673	$ 12,629	$ 15,312	$ 30,156	$ 9,376
Potential problem loans					
PPP[(b)]	$ 47	$ 54	$ 2,000	$ 4,160	$ 8,695
Asset-based lending & equipment finance[(c)]	19,813	19,057	17,697	—	—
Commercial and industrial	84,785	93,396	120,561	124,990	77,064
Commercial real estate — owner occupied	38,628	24,005	26,723	21,241	17,828
Commercial and business lending	143,273	136,513	166,981	150,391	103,587
Commercial real estate — investor	132,635	130,792	106,138	78,962	71,613
Real estate construction	82	200	21,408	19,187	16,465
Commercial real estate lending	132,717	130,992	127,546	98,150	88,078
Total commercial	275,990	267,505	294,527	248,541	191,665
Residential mortgage	3,297	3,032	2,214	2,374	3,024
Home equity	188	156	165	171	1,558
Total consumer	3,486	3,188	2,379	2,546	4,583
Total potential problem loans	$ 279,475	$ 270,693	$ 296,905	$ 251,087	$ 196,248

(a) Primarily closed branches and other bank operated real estate facilities, pending disposition.
(b) The Corporation's policy is to assign risk ratings at the borrower level. PPP loans are 100% guaranteed by the SBA and therefore the Corporation considers these loans to have a risk profile similar to pass rated loans.
(c) Periods prior to March 31, 2022 do not include equipment finance.

Nonaccrual loans: Nonaccrual loans are considered to be one indicator of potential future loan losses. See Note 7 Loans of the notes to consolidated financial statements for additional nonaccrual loan disclosures. See also sections Credit Risk and Allowance for Credit Losses on Loans.

Accruing loans past due 90 days or more: Loans past due 90 days or more but still accruing interest are classified as such where the underlying loans are both well secured (the collateral value is sufficient to cover principal and accrued interest) and are in the process of collection.

Restructured loans: Loans are considered restructured loans if concessions have been granted to borrowers that are experiencing financial difficulty. See also Note 7 Loans of the notes to consolidated financial statements for additional restructured loans disclosures.

Potential problem loans: The level of potential problem loans is another predominant factor in determining the relative level of risk in the loan portfolio and in determining the appropriate level of the ACLL. Potential problem loans are generally defined by management to include loans rated as substandard by management that are collectively evaluated (not nonaccrual loans or accruing TDRs); however, there are circumstances present to create doubt as to the ability of the borrower to comply with present repayment terms. The decision of management to include performing loans in potential problem loans does not necessarily mean that the Corporation expects losses to occur, but that management recognizes a higher degree of risk associated with these loans.

OREO: Management actively seeks to ensure OREO properties held are monitored to minimize the Corporation's risk of loss.

Allowance for Credit Losses on Loans

Credit risks within the loan portfolio are inherently different for each loan type. Credit risk is controlled and monitored through the use of lending standards, a thorough review of potential borrowers, and ongoing review of loan payment performance. Active asset quality administration, including early problem loan identification and timely resolution of problems, aids in the management of credit risk and the minimization of loan losses. Credit risk management for each loan type is discussed in the section entitled Credit Risk. See Note 7 Loans of the notes to consolidated financial statements for additional disclosures on the ACLL.

To assess the appropriateness of the ACLL, the Corporation focuses on the evaluation of many factors, including but not limited to: evaluation of facts and issues related to specific loans, management's ongoing review and grading of the loan portfolio, credit report refreshes, consideration of historical loan loss and delinquency experience on each portfolio category, trends in past due and nonaccrual loans, the level of potential problem loans, the risk characteristics of the various classifications of loan segments, changes in the size and character of the loan portfolio, concentrations of loans to specific borrowers or industries, existing economic conditions and economic forecasts, the fair value of underlying collateral, funding assumptions on lines, and other qualitative and quantitative factors which could affect potential credit losses. The Corporation utilized the Moody's baseline forecast for May 2022 which was compared to the June 2022 forecast for material updates, in the allowance model. The forecast is applied over a 2 year reasonable and supportable period with straight-line reversion to historical losses over the second year of the period. Assessing these factors involves significant judgment. Because each of the criteria used is subject to change, the ACLL is not necessarily indicative of the trend of future credit losses on loans in any particular segment. Therefore, management considers the ACLL a critical accounting estimate, see section Critical Accounting Estimates for additional information on the ACLL. See section Nonperforming Assets for a detailed discussion on asset quality. See also Note 7 Loans of the notes to consolidated financial statements for additional ACLL disclosures. Table 5 provides information on loan growth and period end loan composition, Table 10 provides additional information regarding NPAs, and Table 11 and Table 12 provide additional information regarding activity in the ACLL.

The loan segmentation used in calculating the ACLL at June 30, 2022 and December 31, 2021 was generally comparable. The methodology to calculate the ACLL consists of the following components: a valuation allowance estimate is established for commercial and consumer loans determined by the Corporation to be individually evaluated, using discounted cash flows, estimated fair value of underlying collateral, and/or other data available. Loans are segmented for criticized loan pools by loan type as well as for non-criticized loan pools by loan type, primarily based on historical loss rates after considering loan type, historical loss and delinquency experience, credit quality, and industry classifications. Loans that have been criticized are considered to have a higher risk of default than non-criticized loans, as circumstances were present to support the lower loan grade, warranting higher loss factors. Additionally, management allocates ACLL to absorb losses that may not be provided for by the other components due to qualitative factors evaluated by management, such as limitations within the credit risk grading process, known current economic or business conditions that may not yet show in trends, industry or other concentrations with current issues that impose higher inherent risks than are reflected in the loss factors, and other relevant considerations. The total allowance is available to absorb losses from any segment of the loan portfolio.

Table of Contents

Table 11 Allowance for Credit Losses on Loans

($ in Thousands)	YTD Jun 30, 2022	YTD Jun 30, 2021	Quarter Ended Jun 30, 2022	Quarter Ended Mar 31, 2022	Quarter Ended Dec 31, 2021	Quarter Ended Sep 30, 2021	Quarter Ended Jun 30, 2021
Allowance for Loan Losses							
Balance at beginning of period	$ 280,015	$ 383,702	$ 279,058	$ 280,015	$ 290,997	$ 318,811	$ 352,938
Provision for loan losses	(1,000)	(55,500)	2,000	(3,000)	(4,500)	(20,000)	(29,500)
Charge offs	(3,819)	(20,855)	(1,791)	(2,028)	(8,869)	(10,929)	(7,681)
Recoveries	5,576	11,464	1,504	4,072	2,387	3,115	3,054
Net (charge offs) recoveries	1,757	(9,391)	(287)	2,044	(6,482)	(7,814)	(4,628)
Balance at end of period	$ 280,771	$ 318,811	$ 280,771	$ 279,058	$ 280,015	$ 290,997	$ 318,811
Allowance for Unfunded Commitments							
Balance at beginning of period	$ 39,776	$ 47,776	$ 38,776	$ 39,776	$ 41,276	$ 45,276	$ 50,776
Provision for unfunded commitments	(3,000)	(2,500)	(2,000)	(1,000)	(1,500)	(4,000)	(5,500)
Balance at end of period	$ 36,776	$ 45,276	$ 36,776	$ 38,776	$ 39,776	$ 41,276	$ 45,276
Allowance for credit losses on loans	$ 317,547	$ 364,087	$ 317,547	$ 317,835	$ 319,791	$ 332,273	$ 364,087
Provision for credit losses on loans	(4,000)	(58,000)	—	(4,000)	(6,000)	(24,000)	(35,000)
Net loan (charge offs) recoveries							
Asset-based lending & equipment finance[(a)]	$ —	$ 294	$ —	$ —	$ 27	$ 91	$ 261
Commercial and industrial	1,410	2,406	(444)	1,854	(6,669)	(9,149)	1,072
Commercial real estate — owner occupied	7	9	4	3	4	106	5
Commercial and business lending	1,417	2,709	(440)	1,857	(6,638)	(8,951)	1,338
Commercial real estate — investor	—	(11,475)	—	—	109	181	(5,589)
Real estate construction	33	52	2	32	52	18	23
Commercial real estate lending	33	(11,423)	2	32	162	199	(5,566)
Total commercial	1,450	(8,715)	(439)	1,889	(6,476)	(8,752)	(4,228)
Residential mortgage	508	(332)	220	288	(6)	300	(223)
Auto finance	(10)	12	(14)	4	(11)	8	3
Home equity	776	681	461	315	546	959	337
Other consumer	(967)	(1,038)	(516)	(451)	(534)	(329)	(517)
Total consumer	306	(676)	151	155	(6)	938	(400)
Total net (charge offs) recoveries	$ 1,757	$ (9,391)	$ (287)	$ 2,044	$ (6,482)	$ (7,814)	$ (4,628)
Ratios							
Allowance for credit losses on loans to total loans	1.20 %	1.52 %	1.20 %	1.30 %	1.32 %	1.41 %	1.52 %
Allowance for credit losses on loans to net charge offs (annualized)	N/M	19.2x	N/M	N/M	12.4x	10.7x	19.6x
Loan Evaluation Method for ACLL							
Individually evaluated for impairment			$ 10,068	$ 13,625	$ 15,194	$ 19,913	$ 29,352
Collectively evaluated for impairment			307,480	304,210	304,597	312,359	334,734
Total ACLL			$ 317,547	$ 317,835	$ 319,791	$ 332,273	$ 364,087
Loan Balance							
Individually evaluated for impairment			$ 81,457	$ 110,445	$ 115,643	$ 131,484	$ 141,817
Collectively evaluated for impairment			26,413,241	24,421,481	24,109,306	23,490,189	23,805,719
Total loan balance			$ 26,494,698	$24,531,926	$ 24,224,949	$ 23,621,673	$23,947,536

N/M = Not Meaningful
(a) Periods prior to March 31, 2022 do not include equipment finance.

Table 12 Annualized Net (Charge Offs) Recoveries[(a)]

(In basis points)	YTD Jun 30, 2022	YTD Jun 30, 2021	Quarter Ended Jun 30, 2022	Quarter Ended Mar 31, 2022	Quarter Ended Dec 31, 2021	Quarter Ended Sep 30, 2021	Quarter Ended Jun 30, 2021
Net loan (charge offs) recoveries							
Asset-based lending & equipment finance[(b)]	—	46	—	—	9	36	87
Commercial and industrial	4	6	(2)	10	(34)	(47)	6
Commercial real estate — owner occupied	—	—	—	—	—	5	—
Commercial and business lending	3	6	(2)	8	(29)	(40)	6
Commercial real estate — investor	—	(54)	—	—	1	2	(52)
Real estate construction	—	1	—	1	1	—	1
Commercial real estate lending	—	(37)	—	—	1	1	(36)
Total commercial	2	(11)	(1)	5	(17)	(23)	(11)
Residential mortgage	1	(1)	1	2	—	2	(1)
Auto finance	—	27	(1)	1	(9)	43	15
Home equity	27	21	32	22	36	61	21
Other consumer	(66)	(72)	(70)	(62)	(71)	(44)	(72)
Total consumer	1	(2)	1	1	—	4	(2)
Total net (charge offs) recoveries	1	(8)	—	3	(11)	(13)	(8)

(a) Annualized ratio of net charge offs to average loans by loan type.
(b) Periods prior to March 31, 2022 do not include equipment finance.

Notable Contributions to the Change in the Allowance for Credit Losses on Loans

- Potential problem loans decreased $17 million, or 6%, from December 31, 2021, and increased $83 million, or 42%, from June 30, 2021. The decrease from December 31, 2021 was primarily driven by commercial and industrial and real estate construction lending, partially offset by increases in CRE-investor and CRE-owner occupied lending. The increase from June 30, 2021 was primarily driven by increases in CRE-investor, CRE-owner occupied, and asset-based lending. These increases were partially offset by a decrease in real estate construction lending. See Table 10 for additional information regarding potential problem loans.

- Total nonaccrual loans decreased $22 million, or 17%, from December 31, 2021, and decreased $39 million, or 26%, from June 30, 2021. The decrease from December 31, 2021 was primarily due to decreases in CRE-investor and commercial and industrial lending. The decrease from June 30, 2021 was primarily driven by decreases in commercial and industrial, CRE-investor, and residential mortgage lending. See Note 7 Loans of the notes to consolidated financial statements and Table 10 for additional disclosures on the changes in asset quality.

- YTD net charge offs (recoveries) decreased $11 million from June 30, 2021 to a recovery position, primarily driven by no charge offs in the CRE-investor portfolio in the current period, combined with net recoveries in the commercial and industrial, home equity, and residential mortgage portfolios. See Table 11 and Table 12 for additional information on the activity in the ACLL.

Management believes the level of ACLL to be appropriate at June 30, 2022.

Deposits and Customer Funding

The following table summarizes the composition of our deposits and customer funding:

Table 13 Period End Deposit and Customer Funding Composition

	Jun 30, 2022		Mar 31, 2022		Dec 31, 2021		Sep 30, 2021		Jun 30, 2021	
($ in Thousands)	Amount	% of Total	Amount	% of Total	Amount	% of Total	Amount	% of Total	Amount	% of Total
Noninterest-bearing demand	$ 8,085,702	28 %	$ 8,315,699	29 %	$ 8,504,077	30 %	$ 8,170,105	29 %	$ 7,999,143	29 %
Savings	4,708,156	16 %	4,661,232	16 %	4,410,198	15 %	4,278,453	15 %	4,182,651	15 %
Interest-bearing demand	6,789,722	24 %	6,616,767	23 %	7,019,782	25 %	6,407,844	23 %	5,969,285	22 %
Money market	7,769,415	27 %	7,522,797	26 %	7,185,111	25 %	7,583,978	27 %	7,640,825	28 %
Time deposits	1,223,581	4 %	1,288,913	5 %	1,347,262	5 %	1,410,886	5 %	1,472,395	5 %
Total deposits	$ 28,576,577	100 %	$ 28,405,409	100 %	$ 28,466,430	100 %	$ 27,851,266	100 %	$ 27,264,299	100 %
Customer funding[(a)]	296,440		299,301		354,142		322,081		226,160	
Total deposits and customer funding	$ 28,873,017		$ 28,704,710		$ 28,820,572		$ 28,173,348		$ 27,490,459	
Network transaction deposits[(b)]	$ 891,902		$ 762,680		$ 766,965		$ 929,174		$ 871,603	
Net deposits and customer funding (total deposits and customer funding, excluding network transaction deposits)	27,981,114		27,942,029		28,053,607		27,244,174		26,618,856	
Time deposits of more than $250,000	180,705		209,208		215,100		223,075		232,035	

(a) Securities sold under agreement to repurchase and commercial paper.
(b) Included above in interest-bearing demand and money market.

- Total deposits, which are the Corporation's largest source of funds, increased $110 million from December 31, 2021, and increased $1.3 billion, or 5%, from June 30, 2021.
- Time deposits decreased $124 million, or 9%, from December 31, 2021, and decreased $249 million, or 17%, from June 30, 2021, due to the maturity of time deposits.

Liquidity

The objective of liquidity risk management is to ensure that the Corporation has the ability to generate sufficient cash or cash equivalents in a timely and cost effective manner to satisfy the cash flow requirements of depositors and borrowers and to meet its other commitments as they become due. The Corporation’s liquidity risk management process is designed to identify, measure, and manage the Corporation’s funding and liquidity risk to meet its daily funding needs in the ordinary course of business, as well as to address expected and unexpected changes in its funding requirements. The Corporation engages in various activities to manage its liquidity risk, including diversifying its funding sources, stress testing, and holding readily-marketable assets which can be used as a source of liquidity, if needed.

The Corporation performs dynamic scenario analysis in accordance with industry best practices. Measures have been established to ensure the Corporation has sufficient high quality short-term liquidity to meet cash flow requirements under stressed scenarios. In addition, the Corporation also reviews static measures such as deposit funding as a percentage of total assets and liquid asset levels. Strong capital ratios, credit quality, and core earnings are also essential to maintaining cost effective access to wholesale funding markets. At June 30, 2022, the Corporation was in compliance with its internal liquidity objectives and had sufficient asset-based liquidity to meet its obligations under a stressed scenario.

The Corporation maintains diverse and readily available liquidity sources, including:

- Investment securities, which are an important tool to the Corporation’s liquidity objective and can be pledged or sold to enhance liquidity, if necessary. See Note 6 Investment Securities of the notes to consolidated financial statements for additional information on the Corporation's investment securities portfolio, including pledged investment securities.
- Pledgeable loan collateral, which is eligible collateral with both the Federal Reserve Bank and the FHLB under established lines of credit. Based on the amount of collateral pledged, the FHLB established a collateral value from which the Bank may draw advances, and issue letters of credit in favor of public fund depositors, against the collateral. As of June 30, 2022, the Bank had $1.3 billion available for future funding. The Federal Reserve Bank also establishes a collateral value of assets to support borrowings from the discount window. As of June 30, 2022, the Bank had $645 million available for discount window borrowings.
- A $200 million Parent Company commercial paper program, of which $23 million was outstanding as of June 30, 2022.

- Dividends and service fees from subsidiaries, as well as the proceeds from issuance of capital, are also funding sources for the Parent Company.
- Acquisition related equity issuances by the Parent Company; the Corporation has filed a shelf registration statement with the SEC under which the Parent Company may, from time to time, offer shares of the Corporation's common stock in connection with acquisitions of businesses, assets, or securities of other companies.
- Other issuances by the Parent Company; the Corporation maintains on file with the SEC a universal shelf registration statement, under which the Parent Company may offer the following securities, either separately or in units: debt securities, preferred stock, depositary shares, common stock, and warrants.
- Bank issuances; the Bank may also issue institutional CDs, network transaction deposits, and brokered CDs.
- Global Bank Note Program issuances; the Bank has implemented a program pursuant to which it may from time to time offer up to $2.0 billion aggregate principal amount of its unsecured senior and subordinated notes.

Credit ratings relate to the Corporation's ability to issue debt securities and the cost to borrow money, and should not be viewed as an indication of future stock performance or a recommendation to buy, sell, or hold securities. Adverse changes in these factors could result in a negative change in credit ratings and impact not only the ability to raise funds in the capital markets but also the cost of these funds. The credit ratings of the Parent Company and the Bank at June 30, 2022 are displayed below:

Table 14 Credit Ratings

	Moody's	S&P
Bank short-term deposits	P-1	-
Bank long-term deposits/issuer	A1	BBB+
Corporation commercial paper	P-2	-
Corporation long-term senior debt/issuer	Baa1	BBB
Outlook	Negative	Stable

For the six months ended June 30, 2022, net cash provided by operating and financing activities was $489 million and $2.0 billion, respectively, while net cash used in investing activities was $2.7 billion, for a net decrease in cash and cash equivalents of $158 million since year-end 2021. At June 30, 2022, assets of $37.2 billion increased $2.1 billion, or 6%, from year-end 2021, primarily due to loan growth. On the funding side, deposits of $28.6 billion increased $110 million from year-end 2021 and FHLB advances increased $1.6 billion to fund loan growth.

For the six months ended June 30, 2021, net cash provided by operating, investing, and financing activities was $230 million, $249 million, and $577 million, respectively, for a net increase in cash and cash equivalents of $1.1 billion from year-end 2020. At June 30, 2021, assets of $34.2 billion increased $733 million, or 2%, from year-end 2020, primarily driven by a $1.0 billion increase in interest-bearing deposits in other financial institutions, partially offset by a $504 million, or 2%, decrease in loans. On the funding side, deposits of $27.3 billion increased $782 million, or 3%, from year-end 2020 related to deposit inflows from government stimulus programs.

Quantitative and Qualitative Disclosures about Market Risk

Market risk and interest rate risk are managed centrally. Market risk is the potential for loss arising from adverse changes in the fair value of fixed-income securities, equity securities, other earning assets and derivative financial instruments as a result of changes in interest rates or other factors. Interest rate risk is the potential for reduced net interest income resulting from adverse changes in the level of interest rates. As a financial institution that engages in transactions involving an array of financial products, the Corporation is exposed to both market risk and interest rate risk. In addition to market risk, interest rate risk is measured and managed through a number of methods. The Corporation uses financial modeling simulation techniques that measure the sensitivity of future earnings due to changing rate environments to measure interest rate risk.

Policies established by the Corporation's ALCO and approved by the Board of Directors are intended to limit these risks. The Board has delegated day-to-day responsibility for managing market and interest rate risk to ALCO. The primary objectives of market risk management are to minimize any adverse effect that changes in market risk factors may have on net interest income and to offset the risk of price changes for certain assets recorded at fair value.

Interest Rate Risk

The primary goal of interest rate risk management is to control exposure to interest rate risk within policy limits approved by the Board of Directors. These limits and guidelines reflect the Corporation's risk appetite for interest rate risk over both short-term and long-term horizons. No interest rate limit breaches occurred during the first six months of 2022.

The major sources of the Corporation's non-trading interest rate risk are timing differences in the maturity and re-pricing characteristics of assets and liabilities, changes in the shape of the yield curve, and the potential exercise of explicit or embedded options. We measure these risks and their impact by identifying and quantifying exposures through the use of sophisticated simulation and valuation models which are employed by management to understand NII at risk, interest rate sensitive EAR, and MVE at risk. The Corporation's interest rate risk profile is such that a higher or steeper yield curve adds to income while a flatter yield curve is relatively neutral, and a lower or inverted yield curve generally has a negative impact on earnings. The Corporation's EAR profile is asset sensitive at June 30, 2022.

For further discussion of the Corporation's interest rate risk and corresponding key assumptions, see the Interest Rate Risk section of Management's Discussion and Analysis of Financial Condition and Results of Operations included in the Corporation's 2021 Annual Report on Form 10-K.

The sensitivity analysis included below is measured as a percentage change in NII and EAR due to gradual moves in benchmark interest rates from a baseline scenario over 12 months. We evaluate the sensitivity using: 1) a dynamic forecast incorporating expected growth in the balance sheet, and 2) a static forecast where the current balance sheet is held constant.

While a gradual shift in interest rates was used in this analysis to provide an estimate of exposure under a probable scenario, an instantaneous shift in interest rates would have a more significant impact.

Table 15 Estimated % Change in Rate Sensitive Earnings at Risk Over 12 Months

	Jun 30, 2022		Dec 31, 2021	
	Dynamic Forecast	Static Forecast	Dynamic Forecast	Static Forecast
Gradual Rate Change				
100 bp increase in interest rates	5.4 %	4.1 %	5.0 %	5.4 %
200 bp increase in interest rates	10.8 %	8.2 %	10.6 %	11.7 %

At June 30, 2022, the MVE profile indicates a decrease in net balance sheet value due to instantaneous upward changes in rates.

Table 16 Market Value of Equity Sensitivity

	Jun 30, 2022	Dec 31, 2021
Instantaneous Rate Change		
100 bp increase in interest rates	(3.0)%	(1.8)%
200 bp increase in interest rates	(6.0)%	(3.7)%

Since MVE measures the discounted present value of cash flows over the estimated lives of instruments, the change in MVE does not directly correlate to the degree that earnings would be impacted over a shorter time horizon (i.e., the current year). Further, MVE does not take into account factors such as future balance sheet growth, changes in product mix, changes in yield curve relationships, and changes in product spreads that could mitigate the adverse impact of changes in interest rates.

The above NII, EAR, and MVE measures do not include all actions that management may undertake to manage this risk in response to anticipated changes in interest rates.

In 2014, the Financial Stability Oversight Council and Financial Stability Board raised concerns about the reliability and robustness of LIBOR and called for the development of alternative interest rate benchmarks. The ARRC, through authority from the Federal Reserve, has selected the SOFR as the alternative rate and developed a paced transition plan which addresses the risk that LIBOR may not exist beyond June 2023.

As part of the Corporation's efforts to limit exposure to LIBOR based loans, performing borrowers can modify or refinance their residential mortgage loans to a fixed interest rate or an adjustable rate mortgage tied to the one-year treasury adjusted to a constant maturity of one year with an appropriate margin. This provides the Bank and borrower with greater certainty around the loan structure. The Bank has not booked a LIBOR adjustable rate mortgage since the first quarter of 2020.

Additionally, the Corporation has been monitoring its volume of commercial credits and derivatives tied to LIBOR. In 2021, the Corporation began prioritizing SOFR, Prime and Ameribor as the preferred alternative reference rates and ceased booking LIBOR based commitments after the end of 2021. Loans with a maturity after June 2023 are being reviewed and monitored to ensure there is appropriate fallback language in place when LIBOR is no longer published. Loans with a maturity date before that time should naturally mature and be re-underwritten with an appropriate alternative index rate.

Contractual Obligations, Commitments, Off-Balance Sheet Arrangements, and Contingent Liabilities

The following table summarizes significant contractual obligations and other commitments at June 30, 2022, at those amounts contractually due to the recipient, including any unamortized premiums or discounts, hedge basis adjustments, or other similar carrying value adjustments.

Table 17 Contractual Obligations and Other Commitments

($ in Thousands)	Note Reference	One Year or Less	One to Three Years	Three to Five Years	Over Five Years	Total
Time deposits		$ 987,686	$ 191,715	$ 44,175	$ 5	$ 1,223,581
Short-term funding	9	705,620	—	—	—	705,620
FHLB advances	9	2,050,140	400,633	605,227	202,039	3,258,039
Other long-term funding	9	84	249,485	181	69	249,820
Operating leases	18	6,112	10,106	7,219	6,191	29,627
Total		$ 3,749,642	$ 851,939	$ 656,802	$ 208,304	$ 5,466,687

The Corporation utilizes a variety of financial instruments in the normal course of business to meet the financial needs of its customers and to manage its own exposure to fluctuations in interest rates. These financial instruments include derivatives and lending-related commitments. Additional discussion of these instruments can be found in Note 10 Derivative and Hedging Activities and Note 12 Commitments, Off-Balance Sheet Arrangements, Legal Proceedings, Regulatory Matters and Operational Matters of the notes to consolidated financial statements, respectively. The Corporation also has obligations under its retirement plans as described in Note 14 Retirement Plans of the notes to the consolidated financial statements.

Capital

Management actively reviews capital strategies for the Corporation and each of its subsidiaries in light of perceived business risks, future growth opportunities, industry standards, and compliance with regulatory requirements. The assessment of overall capital adequacy depends on a variety of factors, including asset quality, liquidity, stability of earnings, changing competitive forces, economic condition in markets served, and strength of management. At June 30, 2022, the capital ratios of the Corporation and its banking subsidiaries were in excess of regulatory minimum requirements. The Corporation’s capital ratios are summarized in the following table.

Table 18 Capital Ratios

	YTD		Quarter Ended				
($ in Thousands)	Jun 30, 2022	Jun 30, 2021	Jun 30, 2022	Mar 31, 2022	Dec 31, 2021	Sep 30, 2021	Jun 30, 2021
Risk-based Capital[(a)]							
CET1			$ 2,896,675	$ 2,837,789	$ 2,808,289	$ 2,779,943	$ 2,790,392
Tier 1 capital			3,089,593	3,030,579	3,001,074	2,972,622	3,080,015
Total capital			3,506,864	3,448,108	3,570,026	3,550,556	3,655,411
Total risk-weighted assets			29,863,512	27,780,642	27,242,735	26,303,703	26,072,881
Modified CECL transitional amount			67,276	67,276	89,702	92,822	100,776
CET1 capital ratio			9.70 %	10.22 %	10.31 %	10.57 %	10.70 %
Tier 1 capital ratio			10.35 %	10.91 %	11.02 %	11.30 %	11.81 %
Total capital ratio			11.74 %	12.41 %	13.10 %	13.50 %	14.02 %
Tier 1 leverage ratio			8.87 %	8.86 %	8.83 %	8.81 %	9.23 %
Selected Equity and Performance Ratios							
Total stockholders’ equity / assets			10.63 %	11.30 %	11.47 %	11.60 %	12.03 %
Dividend payout ratio[(b)]	38.46 %	31.58 %	35.71 %	41.67 %	40.82 %	35.71 %	32.14 %
Return on average assets	0.92 %	1.10 %	0.97 %	0.86 %	0.87 %	1.01 %	1.06 %
Annualized noninterest expense / average assets	2.02 %	2.07 %	2.04 %	2.00 %	2.06 %	2.03 %	2.04 %

(a) The Federal Reserve establishes regulatory capital requirements, including well-capitalized standards for the Corporation. The Corporation follows Basel III, subject to certain transition provisions. These regulatory capital measurements are used by management, regulators, investors, and analysts to assess, monitor and compare the quality and composition of the Corporation's capital with the capital of other financial services companies.
(b) Ratio is based upon basic earnings per common share.

See Part II, Item 2, Unregistered Sales of Equity Securities and Use of Proceeds, for information on the shares repurchased during the second quarter of 2022.

Non-GAAP Measures

Table 19 Non-GAAP Measures

	YTD		Quarter Ended				
($ in Thousands)	Jun 30, 2022	Jun 30, 2021	Jun 30, 2022	Mar 31, 2022	Dec 31, 2021	Sep 30, 2021	Jun 30, 2021
Selected equity and performance ratios[(a)(b)(c)]							
Tangible common equity / tangible assets			7.23 %	7.68 %	7.86 %	7.92 %	8.04 %
Return on average equity	8.20 %	9.08 %	8.85 %	7.55 %	7.62 %	8.63 %	8.84 %
Return on average tangible common equity	12.27 %	13.86 %	13.29 %	11.26 %	11.34 %	12.97 %	13.44 %
Return on average CET1	11.03 %	12.87 %	11.77 %	10.27 %	10.50 %	12.11 %	12.51 %
Return on average tangible assets	0.97 %	1.16 %	1.03 %	0.90 %	0.92 %	1.07 %	1.12 %
Average stockholders' equity / average assets	11.17 %	12.10 %	11.02 %	11.33 %	11.43 %	11.74 %	12.01 %
Tangible common equity reconciliation[(a)]							
Common equity			$3,766,187	$3,755,092	$3,831,658	$3,801,766	$3,819,852
Goodwill and other intangible assets, net			(1,158,680)	(1,160,883)	(1,163,085)	(1,165,288)	(1,167,491)
Tangible common equity			$2,607,507	$2,594,209	$2,668,573	$2,636,478	$2,652,361
Tangible assets reconciliation[(a)]							
Total assets			$37,235,990	$34,955,900	$35,104,253	$34,439,666	$34,152,625
Goodwill and other intangible assets, net			(1,158,680)	(1,160,883)	(1,163,085)	(1,165,288)	(1,167,491)
Tangible assets			$36,077,310	$33,795,017	$33,941,167	$33,274,378	$32,985,134
Average tangible common equity and average CET1 reconciliation[(a)]							
Common equity	$3,768,621	$3,769,463	$3,743,919	$3,793,597	$3,810,668	$3,807,083	$3,788,237
Goodwill and other intangible assets, net	(1,161,114)	(1,171,679)	(1,160,035)	(1,162,204)	(1,164,394)	(1,166,589)	(1,168,774)
Tangible common equity	2,607,507	2,597,783	2,583,884	2,631,393	2,646,273	2,640,494	2,619,464
Modified CECL transitional amount	67,276	110,778	67,276	67,276	90,528	97,420	105,961
Accumulated other comprehensive loss (income)	125,566	(4,218)	170,253	80,383	18,513	(5,320)	(3,111)
Deferred tax assets, net	39,241	40,260	39,072	39,411	39,640	39,893	39,915
Average CET1	$2,839,591	$2,744,603	$2,860,485	$2,818,464	$2,794,954	$2,772,487	$2,762,229
Average tangible assets reconciliation[(a)]							
Total assets	$35,467,853	$34,033,816	$35,732,583	$35,200,182	$35,016,159	$34,759,489	$34,379,647
Goodwill and other intangible assets, net	(1,161,114)	(1,171,679)	(1,160,035)	(1,162,204)	(1,164,394)	(1,166,589)	(1,168,774)
Tangible assets	$34,306,740	$32,862,137	$34,572,548	$34,037,978	$33,851,765	$33,592,900	$33,210,873
Adjusted net income reconciliation[(b)]							
Net income	$ 161,086	$ 185,307	$ 86,824	$ 74,262	$ 76,877	$ 88,809	$ 91,007
Other intangible amortization, net of tax	3,304	3,329	1,652	1,652	1,652	1,652	1,652
Adjusted net income	$ 164,390	$ 188,637	$ 88,476	$ 75,914	$ 78,529	$ 90,461	$ 92,659
Adjusted net income available to common equity reconciliation[(b)]							
Net income available to common equity	$ 155,336	$ 175,226	$ 83,949	$ 71,387	$ 74,002	$ 84,655	$ 86,131
Other intangible amortization, net of tax	3,304	3,329	1,652	1,652	1,652	1,652	1,652
Adjusted net income available to common equity	$ 158,640	$ 178,555	$ 85,601	$ 73,039	$ 75,654	$ 86,307	$ 87,784
Efficiency ratio reconciliation[(d)]							
Federal Reserve efficiency ratio	63.51 %	66.26 %	61.53 %	65.71 %	67.36 %	65.43 %	66.81 %
Fully tax-equivalent adjustment	(1.05)%	(1.02)%	(0.98)%	(1.13)%	(1.10)%	(1.01)%	(1.07)%
Other intangible amortization	(0.80)%	(0.85)%	(0.76)%	(0.84)%	(0.82)%	(0.83)%	(0.87)%
Fully tax-equivalent efficiency ratio	61.68 %	64.40 %	59.80 %	63.76 %	65.46 %	63.61 %	64.88 %
Provision for unfunded commitments adjustment	0.53 %	0.47 %	0.67 %	0.37 %	0.55 %	1.48 %	2.14 %
Asset gains, net adjustment	0.21 %	0.59 %	0.34 %	0.05 %	0.24 %	1.29 %	— %
Acquisitions, branch sales, and initiatives	— %	0.12 %	— %	— %	(1.43)%	(0.91)%	0.01 %
Adjusted efficiency ratio	62.42 %	65.58 %	60.82 %	64.18 %	64.82 %	65.46 %	67.02 %

(a) Tangible common equity and tangible assets exclude goodwill and other intangible assets, net.

(b) Adjusted net income and adjusted net income available to common equity, which are used in the calculation of return on average tangible assets and return on average tangible common equity, respectively, add back other intangible amortization, net of tax.

(c) These capital measurements are used by management, regulators, investors, and analysts to assess, monitor and compare the quality and composition of our capital with the capital of other financial services companies.

(d) The efficiency ratio as defined by the Federal Reserve guidance is noninterest expense (which includes the provision for unfunded commitments) divided by the sum of net interest income plus noninterest income, excluding investment securities gains (losses), net. The fully tax-equivalent efficiency ratio is noninterest expense (which includes the provision for unfunded commitments), excluding other intangible amortization, divided by the sum of fully tax-equivalent net interest income plus noninterest income, excluding investment securities gains (losses), net. The adjusted efficiency ratio is noninterest expense, which excludes the provision for unfunded commitments, other intangible amortization, acquisition related costs, and announced initiatives, divided by the sum of fully tax-equivalent net interest income plus noninterest income, excluding investment securities gains (losses), net, asset gains (losses), net, and gain on sale of branches, net. Management believes the adjusted efficiency ratio is a meaningful measure as it enhances the comparability of net interest income arising from taxable and tax-exempt sources and provides a better measure as to how the Corporation is managing its expenses by adjusting for acquisition related costs, provision for unfunded commitments, asset gains (losses), net, branch sales, and announced initiatives.

Sequential Quarter Results

The Corporation reported net income of $87 million for the second quarter of 2022, compared to net income of $74 million for the first quarter of 2022. Net income available to common equity was $84 million for the second quarter of 2022, or $0.56 for both basic and diluted earnings per common share. Comparatively, net income available to common equity for the first quarter of 2022 was $71 million, or $0.48 for basic and $0.47 for diluted earnings per common share (see Table 1).

Fully tax-equivalent net interest income for the second quarter of 2022 was $221 million, $29 million, or 15%, higher than the first quarter of 2022. The net interest margin in the second quarter of 2022 was up 29 bp to 2.71%. The increase in net interest income and net interest margin was due to higher interest on earning assets due to the Federal Reserve increasing their federal funds target rate. Average earning assets increased $625 million, or 2%, to $32.6 billion in the second quarter of 2022. Average loans increased $1.3 billion, or 5%. On the funding side, FHLB advances increased $813 million, or 50%, and total interest-bearing deposits decreased $294 million, or 1% (see Table 2).

The provision for credit losses had a negligible release for the second quarter of 2022, compared to a release of $4 million for the first quarter of 2022 (see Table 11). See discussion under sections: Provision for Credit Losses, Nonperforming Assets, and Allowance for Credit Losses on Loans.

Noninterest income for the second quarter of 2022 was $75 million, up $1 million, or 1%, from the first quarter of 2022, driven by higher bank owned life insurance policy redemptions and card-based fees, partially offset by lower mortgage banking, net income (see Table 3).

Noninterest expense for the second quarter of 2022 was $181 million, up $8 million, or 5%, from the first quarter of 2022, driven by higher personnel expenses (see Table 4).

For the second quarter of 2022, the Corporation recognized income tax expense of $23 million, compared to income tax expense of $19 million for the first quarter of 2022. See Income Taxes section for a detailed discussion on income taxes.

Comparable Quarter Results

The Corporation reported net income of $87 million for the second quarter of 2022, compared to $91 million for the second quarter of 2021. Net income available to common equity was $84 million for the second quarter of 2022, or $0.56 for both basic and diluted earnings per common share. Comparatively, net income available to common equity for the second quarter of 2021 was $86 million, or $0.56 for both basic and diluted earnings per share (see Table 1).

Fully tax-equivalent net interest income for the second quarter of 2022 was $221 million, $37 million, or 20%, higher than the second quarter of 2021. The net interest margin between the comparable quarters was up 34 bp, to 2.71% in the second quarter of 2022. The increase in net interest income and net interest margin was due to higher interest on earning assets due to the Federal Reserve increasing their federal funds target rate. Average earning assets increased $1.6 billion, or 5%, to $32.6 billion in the second quarter of 2022 as average loans increased $1.3 billion, or 5%, and investments and other increased by $287 million, or 4%. On the funding side, average interest-bearing deposits increased $636 million, or 3%, from the second quarter of 2021, due to increases in lower cost deposits, partially offset by a decrease in higher cost deposits. Average short and long-term funding increased $769 million, or 32% (see Table 2), primarily driven by an increase in FHLB advances.

The provision for credit losses had a negligible release for the second quarter of 2022, compared to a release of $35 million for the second quarter of 2021, as a result of improving credit quality within the loan portfolio (see Table 11). See discussion under sections: Provision for Credit Losses, Nonperforming Assets, and Allowance for Credit Losses on Loans.

Noninterest income for the second quarter of 2022 was $75 million, up $2 million, or 3%, compared to the second quarter of 2021, primarily due to higher capital markets, net (see Table 3).

Noninterest expense increased $7 million, or 4%, to $181 million for the second quarter of 2022 primarily due to higher personnel expenses (see Table 4).

The Corporation recognized income tax expense of $23 million for the second quarter of 2022, compared to an income tax expense of $22 million for the second quarter of 2021. See section Income Taxes for a detailed discussion on income taxes.

Segment Review

As discussed in Note 15 Segment Reporting of the notes to consolidated financial statements, the Corporation's reportable segments have been determined based upon its internal profitability reporting system, which is organized by strategic business unit. Certain strategic business units have been combined for segment information reporting purposes where the nature of the products and services, the type of customer, and the distribution of those products and services are similar. The reportable segments are Corporate and Commercial Specialty; Community, Consumer and Business; and Risk Management and Shared Services.

Table 20 Selected Segment Financial Data

	Three Months Ended Jun 30,			Six Months Ended Jun 30,		
($ in Thousands)	2022	2021	% Change	2022	2021	% Change
Corporate and Commercial Specialty						
Total revenue[(a)]	$ 145,191	$ 131,643	10 %	$ 282,139	$ 267,803	5 %
Provision for credit losses	12,246	15,716	(22)%	24,900	32,395	(23)%
Noninterest expense	56,847	53,902	5 %	113,406	109,349	4 %
Income tax expense	13,919	11,214	24 %	26,232	23,106	14 %
Net income	62,179	50,812	22 %	117,601	102,953	14 %
Average earning assets	15,083,176	14,024,769	8 %	14,751,601	14,037,418	5 %
Average loans	15,079,176	14,023,611	8 %	14,748,739	14,036,707	5 %
Average deposits	8,752,899	8,646,551	1 %	9,080,190	8,590,041	6 %
Average allocated capital (Average CET1)[(b)]	1,515,244	1,406,646	8 %	1,468,386	1,401,915	5 %
Return on average allocated capital[(b)]	16.46 %	14.49 %	197 bp	16.15 %	14.81 %	134 bp
Community, Consumer, and Business						
Total revenue	$ 139,757	$ 122,437	14 %	$ 261,341	$ 256,432	2 %
Provision for credit losses	4,924	5,279	(7)%	9,580	11,207	(15)%
Noninterest expense	105,139	101,735	3 %	203,802	202,086	1 %
Income tax expense	6,236	3,239	93 %	10,071	9,059	11 %
Net income	23,459	12,185	93 %	37,888	34,080	11 %
Average earning assets	9,784,918	9,379,435	4 %	9,481,879	9,496,153	— %
Average loans	9,784,918	9,379,435	4 %	9,481,879	9,496,153	— %
Average deposits	18,544,542	17,825,851	4 %	18,479,893	17,469,726	6 %
Average allocated capital (Average CET1)[(b)]	593,296	543,810	9 %	554,137	556,549	— %
Return on average allocated capital[(b)]	15.86 %	8.99 %	N/M	13.79 %	12.35 %	144 bp
Risk Management and Shared Services						
Total revenue	$ 6,656	$ (1,123)	N/M	$ 10,339	$ (33)	N/M
Provision for credit losses	(17,172)	(55,999)	(69)%	(38,472)	(101,610)	(62)%
Noninterest expense	19,434	18,839	3 %	37,505	38,386	(2)%
Income tax expense	3,209	8,027	(60)%	5,710	14,917	(62)%
Net income	1,186	28,010	(96)%	5,597	48,274	(88)%
Average earning assets	7,758,257	7,635,545	2 %	8,081,928	7,154,263	13 %
Average loans	534,069	695,568	(23)%	520,924	747,114	(30)%
Average deposits	873,301	998,231	(13)%	847,656	1,079,669	(21)%
Average allocated capital (Average CET1)[(b)]	751,945	811,773	(7)%	817,067	786,139	4 %
Return on average allocated capital[(b)]	(0.90)%	11.43 %	N/M	(0.04) %	9.80 %	N/M
Consolidated Total						
Total revenue[(a)]	$ 291,604	$ 252,957	15 %	$ 553,819	$ 524,202	6 %
Return on average allocated capital[(b)]	11.77 %	12.51 %	-74 bp	11.03 %	12.87 %	-184 bp

N//M = Not meaningful

(a) For the six months ended June 30, 2021, the Corporation recognized a $2 million pre-tax gain on sale of Whitnell.

(b) The Federal Reserve establishes capital adequacy requirements for the Corporation, including CET1. For segment reporting purposes, the ROCET1 reflects return on average allocated CET1. The ROCET1 for the Risk Management and Shared Services segment and the Consolidated Total is inclusive of the annualized effect of the preferred stock dividends.

Notable Changes in Segment Financial Data

The Corporate and Commercial Specialty segment consists of lending and deposit solutions to larger businesses, developers, not-for-profits, municipalities, and financial institutions, and the support to deliver, fund, and manage such banking solutions. In addition, this segment provides a variety of investment, fiduciary, and retirement planning products and services to individuals and small to mid-sized businesses.

- Total revenue increased $14 million from the three and six months ended June 30, 2021 as a result of loan growth and increasing interest rates.
- Provision for credit losses decreased $7 million from the six months ended June 30, 2021 and decreased $3 million from the three months ended June 30, 2021 as a result of improving credit quality.
- Average loans increased $712 million from the six months ended June 30, 2021 and increased $1.1 billion from the three months ended June 30, 2021, primarily driven by growth within the commercial and business lending portfolio.
- Average deposits increased $490 million from the six months ended June 30, 2021 and increased $106 million from the three months ended June 30, 2021, primarily driven by increases in low-cost interest bearing deposits.

The Community, Consumer, and Business segment consists of lending and deposit solutions to individuals and small to mid-sized businesses.

- Total revenue increased $5 million from the six months ended June 30, 2021 and increased $17 million from the three months ended June 30, 2021 as a result of receiving FTP credit for providing funding for the Corporation's loan growth.
- Provision for credit losses decreased $2 million from the six months ended June 30, 2021 as a result of improving credit quality.
- Average loans increased $405 million from the three months ended June 30, 2021, driven by growth in auto finance lending within the consumer portfolio.
- Average deposits increased $1.0 billion from the six months ended June 30, 2021 and increased $719 million from the three months ended June 30, 2021 as a result of customers holding higher deposit balances in every category except time deposits.

The Risk Management and Shared Services segment includes key shared Corporate functions, Parent Company activity, intersegment eliminations, and residual revenues and expenses.

- Revenues increased $10 million from the six months ended June 30, 2021 and increased $8 million from the three months ended June 30, 2021, primarily driven by increased interest income as a result of higher investment income due to the current rate environment.
- Provision for credit losses increased $63 million from the six months ended June 30, 2021 and increased $39 million from the three months ended June 30, 2021, driven by larger provision releases during 2021.
- Average earning assets increased $928 million from the six months ended June 30, 2021 and increased $123 million from the three months ended June 30, 2021, driven by investment purchases throughout the past year.
- Average loans decreased $226 million from the six months ended June 30, 2021 and decreased $161 million from the three months ended June 30, 2021, primarily driven by decreases in commercial and business lending.
- Average deposits decreased $232 million from the six months ended June 30, 2021 and decreased $125 million from the three months ended June 30, 2021, primarily driven by decreases in network deposits.

Critical Accounting Estimates

In preparing the consolidated financial statements, management is required to make estimates and assumptions that affect the reported amounts of assets and liabilities as of the date of the balance sheet and revenues and expenses for the period. Actual results could differ significantly from those estimates. Estimates that are particularly susceptible to significant change include the determination of the ACLL and MSRs valuation. A discussion of these estimates can be found in the Critical Accounting Estimates section in Management's Discussion and Analysis of Financial Condition and Results of Operations included in the Corporation’s 2021 Annual Report on Form 10-K. There has been one change in the Corporation's application of critical accounting estimates since December 31, 2021 driven by the irrevocable election to account for MSRs under the fair value measurement methodology.

Mortgage Servicing Rights Valuation: We have a significant investment in MSRs. Our MSRs are primarily retained from sales in the secondary market of residential mortgage loans we have originated or purchased from correspondent lenders. MSRs are initially recognized and subsequently carried at fair value. Changes in fair value are recognized in earnings as they occur through mortgage banking, net on the consolidated statements of income.

MSRs are not traded in active markets. The fair value of MSRs is determined by discounting the projected cash flows. Certain significant assumptions and estimates used in valuing MSRs are based on current market sources including projected prepayment speeds, assumed servicing costs, ancillary income, costs to service delinquent loans, costs of foreclosure, and discount rates with option-adjusted spreads. Assumptions used to value our MSRs are considered significant unobservable inputs and represent our best estimate of assumptions that market participants would use to value this asset. A separate third party model is used to estimate prepayment speeds based on interest rates, housing turnover rates, estimated loan curtailment, anticipated defaults and other relevant factors. The prepayment model is updated periodically for changes in market conditions and adjusted to better correlate with actual performance of our servicing portfolio. The option-adjusted spread is added to the discount rate across all interest rate paths generated in a stochastic process, which will properly capture the embedded options for MSRs cash flows.

The assumptions used in this model are primarily based on mortgage interest rates. Evaluation of the effect of a change in one assumption without considering the effect of that change on other assumptions is not meaningful. Considering all related assumptions, we expect a 50 basis point increase in the yield curve to increase the fair value of our servicing rights by $4 million and decrease the value of the hedge by $3 million. Likewise, we expect a 50 basis point decrease in the yield curve to decrease the fair value of our servicing rights by $4 million and increase the value of our hedge by $4 million.

Recent Developments

On July 26, 2022, the Corporation’s Board of Directors declared a regular quarterly cash dividend of $0.20 per common share, payable on September 15, 2022 to shareholders of record at the close of business on September 1, 2022. The Board of Directors also declared a regular quarterly cash dividend of $0.3671875 per depositary share on Associated's 5.875% Series E Perpetual Preferred Stock, payable on September 15, 2022 to shareholders of record at the close of business on September 1, 2022. The Board of Directors also declared a regular quarterly cash dividend of $0.3515625 per depositary share on Associated's 5.625% Series F Perpetual Preferred Stock, payable on September 15, 2022 to shareholders of record at the close of business on September 1, 2022.

ITEM 3. Quantitative and Qualitative Disclosures About Market Risk

Information required by this item is set forth in Item 2 under the captions Quantitative and Qualitative Disclosures about Market Risk and Interest Rate Risk.

ITEM 4. Controls and Procedures

The Corporation maintains disclosure controls and procedures as required under Rule 13a-15 promulgated under the Securities Exchange Act of 1934, as amended, that are designed to ensure that information required to be disclosed in the Corporation's Exchange Act reports is recorded, processed, summarized and reported within the time periods specified in the SEC’s rules and forms, and that such information is accumulated and communicated to the Corporation’s management, including its Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure.

As of June 30, 2022, the Corporation’s management carried out an evaluation, under the supervision and with the participation of the Corporation’s Chief Executive Officer and Chief Financial Officer, of the effectiveness of its disclosure controls and procedures. Based on the foregoing, its Chief Executive Officer and Chief Financial Officer concluded that the Corporation’s disclosure controls and procedures were effective as of June 30, 2022.

No changes were made to the Corporation’s internal control over financial reporting (as defined in Rule 13a-15(f) of the Exchange Act of 1934) during the last fiscal quarter that have materially affected, or are reasonably likely to materially affect, the Corporation’s internal control over financial reporting.

PART II - OTHER INFORMATION

ITEM 1. Legal Proceedings

The information required by this item is set forth in Part I, Item 1 under Note 12 Commitments, Off-Balance Sheet Arrangements, Legal Proceedings, Regulatory Matters and Operational Matters of the notes to consolidated financial statements.

ITEM 1A. Risk Factors

The following risk factors supplement the Risk Factors described in the Corporation's 2021 Annual Report on Form 10-K and in the Corporation's Quarterly Report on Form 10-Q for the quarter ended March 31, 2022, and should be read in conjunction therewith.

Changes and instability in economic conditions, geopolitical matters and financial markets, including a contraction of economic activity, could adversely impact our business, results of operations and financial condition. Our success depends, to a certain extent, upon global, domestic and local economic and political conditions, as well as governmental monetary policies. Conditions such as changes in interest rates, money supply, levels of employment and other factors beyond our control may have a negative impact on economic activity. Any contraction of economic activity, including an economic recession, may adversely affect our asset quality, deposit levels and loan demand and, therefore, our earnings. In particular, interest rates are highly sensitive to many factors that are beyond our control, including global, domestic and local economic conditions and the policies of various governmental and regulatory agencies and, specifically, the Federal Reserve. Since March of 2022, the FOMC of the Federal Reserve has raised the target range for the federal funds rate on three separate occasions, resulting in an increase in the target range from 0.00% - 0.25% that prevailed in early March of 2022 to 1.50% - 1.75% at the June 2022 FOMC meeting. At the July 2022 FOMC meeting, the target rate was increased again to 2.25% - 2.50%. The FOMC—citing specifically the hardships caused by the ongoing Russia-Ukraine conflict, continued global supply chain disruptions and imbalances, and increased inflationary pressure—has signaled that it anticipates additional increases in the target range will be appropriate. Increases to prevailing interest rates could influence not only the interest we receive on loans and investments and the amount of interest we pay on deposits and borrowings, but such changes could also affect (i) our ability to originate loans and obtain deposits; (ii) the fair value of our financial assets and liabilities; and (iii) the average duration of our mortgage portfolio and other interest-earning assets.

The tightening of the Federal Reserve's monetary policies, including repeated and aggressive increases in target range for the federal funds rate as noted above as well as the conclusion of the Federal Reserve's tapering of asset purchases, together with ongoing economic and geopolitical instability, increases the risk of an economic recession. Although forecasts have varied, many economists are projecting that U.S. economic growth will slow and inflation will remain elevated in the coming quarters, potentially resulting in a contraction of U.S. gross domestic output by 2023 if not earlier. Any such downturn, especially domestically and in the regions in which we operate, may adversely affect our asset quality, deposit levels, loan demand and results of operations.

As a result of the economic and geopolitical factors discussed above, financial institutions also face heightened credit risk, among other forms of risk. Of note, because we have a significant amount of real estate loans, decreases in real estate values could adversely affect the value of property used as collateral, which, in turn, can adversely affect the value of our loan and investment portfolios. The Office of the Comptroller of the Currency recently reported that although residential real estate values have continued to rise in many markets, the rate of appreciation has slowed in recent quarters. Adverse economic developments, specifically including inflation-related impacts, may have a negative effect on the ability of our borrowers to make timely repayments of their loans or to finance future home purchases. Moreover, while CRE values have stabilized as demand has returned to pre-pandemic levels in several markets, the outlook for CRE remains dependent on the broader economic environment and, specifically, how major subsectors respond to a rising interest rate environment and higher prices for commodities, goods and services. In each case, credit performance over the medium- and long-term is susceptible to economic and market forces and therefore forecasts remain uncertain. Instability and uncertainty in the commercial and residential real estate markets, as well as in the broader commercial and retail credit markets, could have a material adverse effect on our financial condition and results of operations.

ITEM 2. Unregistered Sales of Equity Securities and Use of Proceeds

During the second quarter of 2022, the Corporation repurchased approximately $884,000 of common stock, or approximately 43,000 shares, all of which were repurchases related to tax withholding on equity compensation with no open market purchases during the quarter. The repurchase details are presented in the table below:

Common Stock Purchases

	Total Number of Shares Purchased[a]	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Maximum Number of Shares that May Yet Be Purchased Under the Plans or Programs[b]
Period				
April 1, 2022 - April 30, 2022	39,864	$ 20.61	—	—
May 1, 2022 - May 31, 2022	2,525	19.96	—	—
June 1, 2022 - June 30, 2022	614	18.93	—	—
Total	**43,003**	**$ 20.55**	**—**	**4,361,770**

(a) During the second quarter of 2022, the Corporation repurchased 43,003 common shares for minimum tax withholding settlements on equity compensation. These purchases do not count against the maximum value of shares remaining available for purchase under the Board of Directors' authorization.

(b) At June 30, 2022, there remained $80 million authorized to be repurchased in the aggregate. Approximately 4.4 million shares of common stock remained available to be repurchased under this Board authorization given the closing share price on June 30, 2022.

Repurchases under Board authorized repurchase programs are subject to any necessary regulatory approvals and other limitations and may occur from time to time in open market purchases, block transactions, private transactions, accelerated share repurchases, or similar facilities.

ITEM 6. Exhibits

(a) Exhibits:

Exhibit (10.1), Offer Letter Agreement between Associated Banc-Corp and Derek Meyer, dated May 27, 2022, incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K dated June 15, 2022.

Exhibit (10.2), Offer Letter Agreement between Associated Banc-Corp and Bryan Carson, dated May 31, 2022.

Exhibit (31.1), Certification Under Section 302 of Sarbanes-Oxley by Andrew J. Harmening, Chief Executive Officer.

Exhibit (31.2), Certification Under Section 302 of Sarbanes-Oxley by Christopher J. Del Moral-Niles, Chief Financial Officer.

Exhibit (32), Certification by the Chief Executive Officer and Chief Financial Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of Sarbanes-Oxley.

Exhibit (101), Interactive data files pursuant to Rule 405 of Regulation S-T: (i) Unaudited Consolidated Balance Sheets, (ii) Unaudited Consolidated Statements of Income, (iii) Unaudited Consolidated Statements of Comprehensive Income, (iv) Unaudited Consolidated Statements of Changes in Stockholders' Equity, (v) Unaudited Consolidated Statements of Cash Flows, and (vi) Notes to Consolidated Financial Statements.

Exhibit (104), The cover page from the Corporation's Quarterly Report on Form 10-Q for the quarter ended June 30, 2022 has been formatted in Inline XBRL (Inline Extensible Business Reporting Language) and contained in Exhibits in 101.

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 hereunto duly authorized.

	ASSOCIATED BANC-CORP
	(Registrant)
Date: July 28, 2022	/s/ Andrew J. Harmening
	Andrew J. Harmening President and Chief Executive Officer
Date: July 28, 2022	/s/ Christopher J. Del Moral-Niles
	Christopher J. Del Moral-Niles Chief Financial Officer
Date: July 28, 2022	/s/ Tammy C. Stadler
	Tammy C. Stadler Chief Accounting Officer

ASSOCIATED BANC-CORP
433 Main Street
Green Bay, Wisconsin 54301

May 31, 2022

Mr. Bryan Carson

Dear Bryan:

I am pleased to offer you employment with Associated Banc-Corp (the "Company") pursuant to the terms set forth in this letter agreement (the "Agreement") and conditioned as set forth herein.

1. The following outlines the general terms of our offer:

Position/Duties:	Your position will be Executive Vice President, Chief Product & Marketing Officer (the "CPMO") of the Company and its subsidiaries ("Associated"). You will report directly to the President and Chief Executive Officer ("CEO"), Andy Harmening with duties assigned by the CEO and the Board of Directors of the Company (the "Board") consistent with your title and your role with the Company.
Start Date:	We would like you to commence your employment with Associated as soon as possible. You agree to provide your current employer with notice as soon as possible but no later than the next business day after acceptance of this offer. As time is of the essence for Associated, you agree to commence your employment with Associated no later than September 6 (the date you begin employment with Associated is your "Start Date"). If you are unable to begin employment with Associated by the Start Date, the offer of employment shall be revoked, and this Agreement shall be deemed null and void.
Base Salary:	Your annualized base salary ("Base Salary") for 2022 will be $440,000, to be earned and payable in accordance with Associated's normal payroll cycles. The Compensation Committee of the Board (the "Compensation Committee") will review your Base Salary annually and may adjust your Base Salary in future years.
Annual Incentive:	During each year of your employment, you will be eligible to earn an annual cash incentive, targeted at 65% of your Base Salary then in effect. For 2022, your annual incentive bonus will be prorated to 60% of target if your Start Date is on or before August 5. If your Start Date is after August 5 but not later than September 6, your 2022 bonus will be prorated to 50% of target. Your actual incentive will be calculated and based on the attainment of Associated's and/or individual performance objectives as established each year under Associated's Management Incentive Plan. The Compensation Committee may change your target annual incentive in future years.
Long-term Incentive	You will be eligible for an annual equity grant in 2023 with a grant date fair value (as determined under GAAP) equal to 70% of your then Base Salary. For 2023, equity grants will be made in the form of time vested restricted stock units (25% of the award, with vesting ratably annually over 4 years) and

performance vesting restricted stock units (75% of the award, with vesting over a 3-year performance period). Awards will be subject to, and governed by, Associated's 2020 Incentive Compensation Plan. The Compensation Committee may change the mix, weighting, vesting and/or form of awards in the future.

Sign-on Grant

On your Start Date, the Company will grant you certain restricted stock units (the "Sign-on Grant"). The Sign-On Grant will have a value of $790,000. The Sign-on Grant will be in the form of time-based restricted stock and will vest ratably over 3 years. Awards will be subject to, and governed by, Associated's 2020 Incentive Compensation Plan. The number of shares subject to the Sign-on Grant will be determined by dividing the value of the grant by the average of the closing prices of the Company's stock for the ten trading days ending immediately prior to your Start Date.

Benefits:

During your employment, you will be eligible for Associated's then-current employee benefits programs applicable to senior executives of Associated generally (including, 401(k) plan, our Retirement Account Plan, Supplemental Executive Retirement Plan, medical, dental, and vacation or paid time-off policies or programs), subject to all plan terms and eligibility requirements. Any benefits for which you may be eligible will be more fully described in the applicable plan summaries and related documents. Associated reserves the right to change, discontinue or amend its benefit programs and policies at any time. Associated will reimburse you for up to $150,000 of reasonable expenses incurred by you in relocating to Wisconsin (including moving, temporary housing and other expenses incurred with selling your home in Ohio) Such reimbursements will require appropriate documentation under Associated's expense reimbursement policies.

Sign-on Bonus

As part of your offer of employment, Associated Bank will pay a $150,000 signing bonus to you within the first 30 days of employment. In the event you voluntarily leave the company for any reason before completing one year of service, the signing bonus must be repaid per the following pro-rated schedule.

Months of Employment	**Pro-rated Schedule**
1 to 3	100%
4 to 6	75%
7 to 9	50%
10 to 12	25%

At-Will Employment:

Your employment at Associated is "at will." This means that you may resign from Associated at any time for any reason and Associated has the right to terminate your employment relationship with or without cause at any time.

Neither this Agreement nor any other communication, written or oral, should be construed as a contract of employment for any particular duration.

Change of Control:

You will be eligible for our standard form of Change in Control Agreement at the Executive Leadership Team level (two times level).

2. You represent that your acceptance of employment with Associated, and the performance of your duties for Associated, does not and will not constitute a breach of or conflict with any agreement or covenant you may have with any current or former employer, including an agreement to keep in confidence any proprietary information of another entity that has been acquired by you in confidence or in trust.

3. This Agreement shall be governed, construed, interpreted and enforced in accordance with its express terms, and otherwise in accordance with the substantive laws of the State of Wisconsin, without reference to the principles of conflicts of law or choice of law of the State of Wisconsin, or any other jurisdiction, and where applicable, the laws of the United States.

4. The invalidity or unenforceability of any provision or provisions of this Agreement shall not affect the validity or enforceability of any other provision of this Agreement, which shall remain in full force and effect.

5. By signing below, you acknowledge and agree to the terms of our offer and the terms this Agreement.

6. This Agreement, the Change in Control Agreement, and the grant agreement reflecting your Sign-On Grant (to be consistent with the provisions of this Agreement), are intended to be the final expression of our agreements with respect to the subject matter hereof and supersede, cancel and annul all prior understandings and agreements, whether written or oral. To the extent that the terms of the Sign-On Grant agreement are inconsistent with the provisions of this Agreement, this Agreement shall control.

7. This Agreement may be executed in several counterparts, each of which shall be deemed to be an original, but all of which together will constitute one and the same Agreement. Signatures delivered by .pdf, .jpeg, or other electronic means will be accepted as an original.

Signature page follows.

Please sign and date this Agreement in the space indicated and return it to my attention to evidence your understanding and acceptance of the terms set forth herein.

Sincerely,

ASSOCIATED BANC-CORP, INC**.**

By: Andrew J. Harmening
Its: President and Chief Executive Officer

Agreed and Accepted:

DocuSigned by:
BJC
1FF86CA57F75450...
Bryan Carson

Dated: 6/2/2022

Exhibit 31.1

CERTIFICATION UNDER SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

CERTIFICATIONS

I, Andrew J. Harmening, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Associated Banc-Corp;

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: July 28, 2022

/s/ Andrew J. Harmening

Andrew J. Harmening

President and Chief Executive Officer

Exhibit 31.2

CERTIFICATION UNDER SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

CERTIFICATIONS

I, Christopher J. Del Moral-Niles, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Associated Banc-Corp;

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: July 28, 2022

/s/ Christopher J. Del Moral-Niles
Christopher J. Del Moral-Niles
Chief Financial Officer

Exhibit 32

Certification by the Chief Executive Officer and Chief Financial Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, each of the undersigned officers of Associated Banc-Corp, a Wisconsin corporation (the “Company”), does hereby certify that:

1. The accompanying Quarterly Report of the Company on Form 10-Q for the quarter ended June 30, 2022 (the “Report”), fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

2. Information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Andrew J. Harmening
Andrew J. Harmening
Chief Executive Officer
July 28, 2022

/s/ Christopher J. Del Moral-Niles
Christopher J. Del Moral-Niles
Chief Financial Officer
July 28, 2022

Associated Bank
Your money works here.®

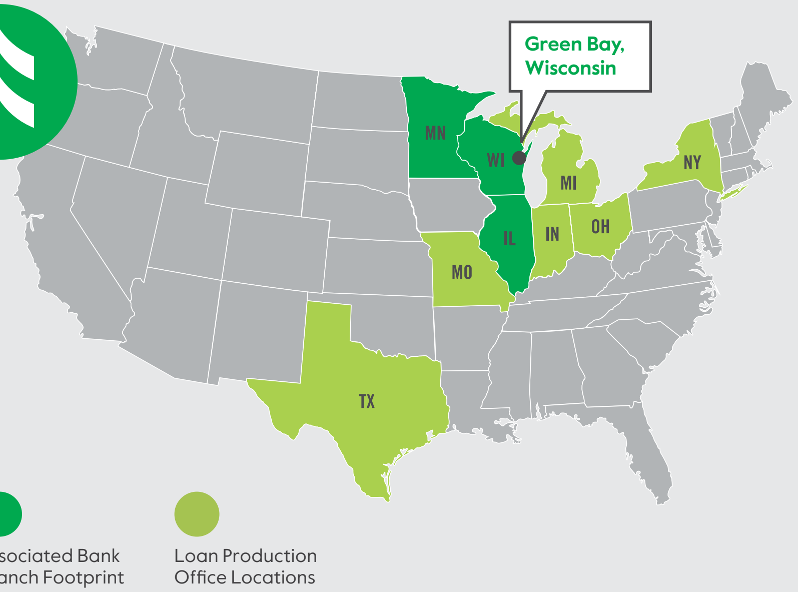
2021
Summary Annual Report

ASSOCIATED BANC-CORP

Corporate Profile

ABOUT US

Headquartered in Green Bay, Wisconsin, Associated Banc-Corp (Associated) is a leading Midwest banking franchise, offering a full range of financial products and services from more than 200 banking locations serving more than 100 communities throughout Wisconsin, Illinois and Minnesota. The company also operates loan production offices in Indiana, Michigan, Missouri, New York, Ohio and Texas.



2021

PERFORMANCE HIGHLIGHTS[1]

Our assets exceeded **$35 billion** at year end.

Average loans of **$24 billion** and record average deposits of **$28 billion**.

Increased our mix of low-cost deposits to **68%**.

Net income available to common equity was **$334 million**, or **$2.18 per common share**.

Tangible book value per share increased by **7%** compared to fourth quarter 2020.

HIGHLIGHTS & ACCOMPLISHMENTS

Largest Wisconsin-based bank by assets.[1]

1.3 million customer accounts in 8 states and over 100 communities.

The Midwest's **Leading Lender** for over a decade.[2]

(1) Data as of, and for the year ended December 31, 2021.

(2) The Leading Lender in the Midwest designation is based on originated, closed-end mortgage loan count, gathered from the Home Mortgage Disclosure Act data compiled annually by the Consumer Financial Protection Bureau. The results of the data were obtained through the Consumer Financial Protection Bureau Mortgage Database (HMDA), July 2021.

Dear Shareholders,

2021 was a transformative year for Associated Banc-Corp. We experienced consistent deposit growth, improving credit dynamics and stabilization in our loan book. We also began to accelerate growth in both our core and new lending categories and brought our digital-forward vision to life as we built momentum around our strategic plan.

We took several steps to deploy capital and support stronger growth and shareholder returns. Taken together, all of these factors helped us drive full-year earnings per share to $2.18.

We are operating from a position of strength. With a solid foundation and risk fundamentals, and an in-motion strategic plan, our growth-focused, digital-forward initiatives have positioned us to deliver increasing value to our colleagues, customers, communities and shareholders in 2022 and beyond.

Our results and momentum reflect the dedication and hard work of our more than 4,000 colleagues who focus on creating value for our customers, every day. We have now supported customers through two years of changing dynamics brought on by COVID-19. Those dynamics have shifted from the immediate disruption and economic downturn of early 2020, to new needs brought on by low unemployment rates, a record-setting housing market, supply chain concerns, and increased demand for products and services.

Despite these pervasive concerns prompted by the COVID-19 pandemic, we are confident in our ability to deliver increasing value to all of our stakeholders through our strategic initiatives already in flight.

BEING BOLD AND DOING MORE

As economic growth and stability generally surpassed expectations and our customers' credit situations improved, we experienced a significant amount of commercial investment activity. Commercial business spending, particularly on equipment and inventory, increased as manufacturers worked to meet the demand for products and better manage ongoing supply chain issues.

Our proactive plans to expand our core middle market teams, deepen our existing asset-based lending capabilities and add a new equipment finance team have positioned us well as we lean into the recovery and assist our largest customers with their growing needs.

(LEFT TO RIGHT)

Andrew J. Harmening, President & Chief Executive Officer, Associated Banc-Corp

John (Jay) B. Williams, Chairman, Associated Banc-Corp

We enhanced our small business- and consumer-direct lending efforts by expanding our sales teams, streamlining our lending processes and retooling products where necessary. This includes building out a new government guaranteed lending unit to support the rising demand for U.S. Small Business Administration (SBA) loans. We look forward to increasing our small business lending in all of our local markets.

We also accelerated our consumer lending while diversifying our portfolio with the addition of a new auto lending vertical and the expansion of our third-party mortgage originations. And, we have brought increased focus to our wealth management services while targeting new opportunities across our footprint.

In complement, we have taken important actions to rethink our investment priorities to meet the evolving needs of our customers. Over the next five years, we expect to redirect $50 million of spend to fund our ongoing digital transformation. These investments will enable us to deliver differentiated and responsive sales and service solutions to our customers, extend our reach into underserved markets and improve our internal operations over time.

Our mindset and investments are focused on growth and transformation.

Our strategic initiatives, which are centered around meeting existing needs of our traditional commercial, small business and consumer customer base, are positioning us to win more in our core geographies and to help our customers and communities prosper and grow. As we continue to roll out our plan, we expect to further accelerate our balance sheet expansion and remain committed to managing our expenses.

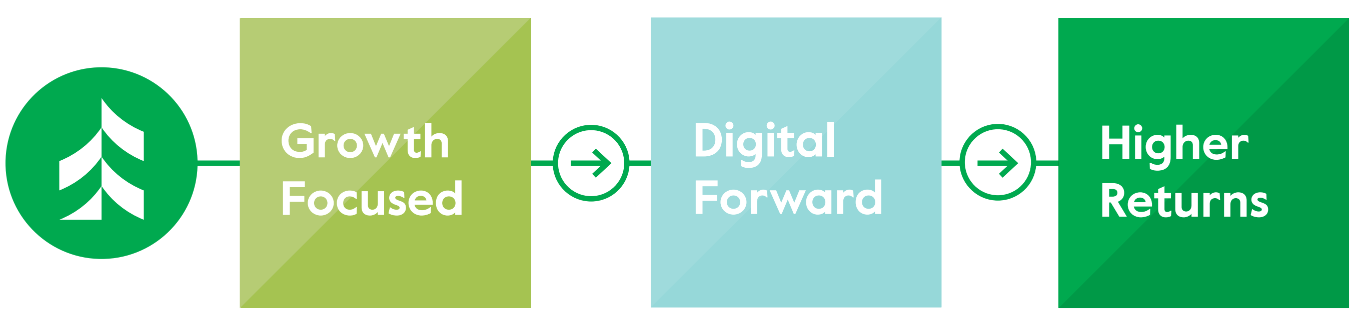
GROWING OUR CORE BUSINESS

Given the strength of our Midwest markets, our solid foundation and the advancement of our strategic plan, we are well positioned to drive revenue growth across our core business lines while also expanding our product and service offerings.

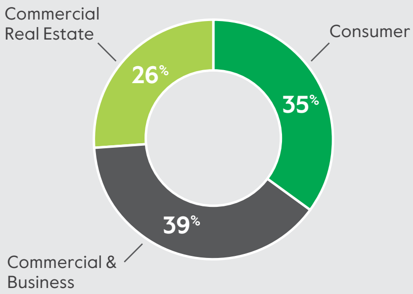
In mid-2021, we began to see encouraging signs of increased commercial activity and line utilization. This is now translating into meaningful commercial loan balance growth, including commercial business lending and commercial real estate (CRE) lending. Even as we intentionally shrank the oil and gas portfolio and Paycheck Protection Program loans were forgiven, our total commercial loan book grew by nearly $500 million during the fourth quarter of 2021, which represents a 13% annualized growth rate from the previous quarter.

With continued signs of a strengthening economy, we see 2022 primed for a rebound in general commercial lending. To accelerate our growth, we added five experienced commercial business banking leaders in 2021 and expect to add 16 more this year. We anticipate the addition of these experienced bankers will help us win more business in our core states, particularly in Milwaukee, Chicago, the Twin Cities and Northeast Wisconsin growth markets, and bring an incremental $100 million in loan balances on an annual, go-forward basis.

To meet the needs of our existing commercial customers and attract new opportunities to Associated, we expanded our asset-based lending and added an equipment finance team late last year. The advancement of these lending verticals further broadens our commercial loan mix and provides meaningful opportunities to deepen relationships with our existing Midwest manufacturing client base. We expect each of these teams to produce more than $150 million in loans in 2022 and over $300 million in loans by the end of 2023.

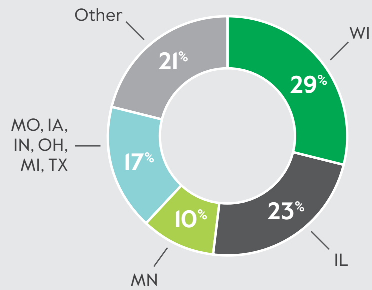


Loans by Type[1]



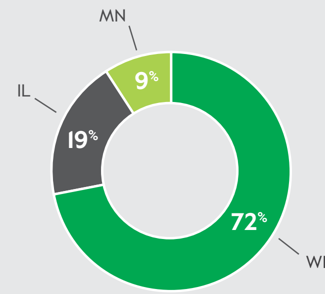
[1] As of December 31, 2021.

Loans by State[2]



[2] As of December 31, 2021. Excludes Other Consumer portfolio.

Deposits by State[3]



[3] FDIC Summary of Deposits Data as of June 30, 2021.

Our CRE business also grew in 2021, as customers continued to build, particularly industrial, distribution and logistics projects across our footprint. To augment growth in this core business, we established a new CRE office in Houston, allowing further expansion in Texas. We expect CRE growth to remain at a strong pace and to increase average CRE balances between 3% and 5% in 2022.

We took several measures to expand and diversify our consumer lending portfolio. We enhanced our online digital account opening processes and expanded our third-party mortgage originations into markets where home sales are less seasonally impacted. We also added a new auto finance vertical, which launched on September 30 in 13 states across the Great Lakes and Northeast.

By the end of the year, we added nearly $140 million of high-quality auto loans to our books. We expect full-year 2022 auto finance loan growth of over $1.2 billion. These new auto loans should support the diversification of our portfolio and earn slightly better spreads as mortgage activity moderates.

We continue to build value through our low-cost deposits. At the end of 2021, low-cost deposits grew to approximately $19.4 billion, representing 68% of our deposit balances. These measures reflect all-time record deposit levels for Associated customers and are a testament to our ability to attract and retain core retail customers.

During the year, we took steps to help strengthen our overall delivery of wealth management services. This includes augmenting our approach to the mass affluent consumer segment to bridge the gap between our core retail and private banking customers. We expect to introduce a new offering for this important demographic by mid-year and to deepen high-value relationships over time.

We also chose to merge our core Northeast Wisconsin market into our community markets line of business. This change reflects the unique nature of our headquarters location. As both a major contributor to our company and with its smaller business populations, we believe this region will be served best by a single team of relationship managers focused on both current and prospective business customers.

DIGITAL-FORWARD INVESTMENTS

Technology is the single biggest driver bringing change to how we meet the needs of our customers and drive efficiency across our operations. We recognize that any financial institution that wants to compete in the future is going to have to invest in digital, and we are taking ownership of our digital destiny as we advance both our customer- and colleague-facing platforms.

Our digital transformation is about customer preferences, ease of use and ongoing reliability.

Our people-first, digitally enabled approach focuses on knowing our customers and gaining deep insights into what they need. To enhance our work, we bring together teams concentrated on customer experience measurement, customer data analytics and market research to more comprehensively understand and measure what's important to current and prospective customers.

In complement, we are also bringing forward digital solutions to improve our internal operations. This includes refinement of legacy systems and development of new solutions that empower colleagues to be more successful in an increasingly digital environment.

More than 64% of Associated customers actively use digital banking services. Sales via digital channels now account for 19% of total deposit sales[1] and 82% of customer-originated mortgage applications.

Our early progress is already showing results. Upon moving our external website to the Cloud in 2021, we began achieving top-rated response times. As a further proof point, we used customer feedback to modify our digital account opening process—increasing top-box customer satisfaction scores from 60% to 81% in the first month.

Simultaneously, we are making meaningful progress building a new, flexible mobile and online architecture that we expect to deploy mid-2022. Our digital customers can expect a major leap forward—as we convert off of our legacy 'bank-in-a-box' platform—and into what will be a differentiated, 'bank-driven' framework. Moving to this open architecture positions us to deliver continuous innovation to our customers who count on us to anticipate and invest ahead of their needs.

Of course, there is a cost to these investment plans, but as we see it—it is a cost shift. As we look to compete now, and in the future, we are confident that our ability to integrate and deliver digital services will embolden our strategies to attract and retain customers. And, going forward, we will use our open digital architecture to add bank and partner-led capabilities to respond to customer and market feedback in a more efficient and effective manner.

PRIORITIZING CUSTOMER EXPERIENCE

To give customers what they want, we have to understand what they value. We regularly measure the customer experience across our service channels—branch, online, mobile, telephone and more—to gain insights on what's working well, what we need to improve and how to prioritize future strategies.

We have made significant strides in customer satisfaction by listening to our customers and sharing direct feedback at all levels of the organization. This has been markedly impactful in our branch and customer care channels where customers and colleagues interact directly.

In 2021, a record 88% of retail customers shared through our internal surveys that they were completely satisfied with their branch experience. Associated was also recognized by J.D. Power, who ranked the bank #1 in Customer Satisfaction with Retail Banking in the Upper Midwest in 2021. We leverage all forms of feedback to advance our customer service channels. This is particularly beneficial as we modernize digital platforms and bring-forward personalized services that differentiate the Associated banking experience.

We have put several strategies in place to continue our momentum and grow our business.

Associated's Customer Governance Council, a cross-functional group of leaders focused on improving customer satisfaction and retention, meets monthly to develop recommendations for solutions to key customer experience gaps. When appropriate, these solutions are managed as corporate initiatives with specialized project management teams. Recent initiatives have helped enhance customer communications, improve branch hours, advance self-service resources for digital banking customers and streamline processes for customers dealing with the loss of a loved one.

(1) Based on products offered via both branch and digital channels.

ADVANCING OUR COMMITMENTS

As a company, we have a 160-year history of making substantial and broad investments in our communities. We enrich these commitments through a strong focus on responsible and sustainable business practices that align with our business strategies; position us to be more efficient and resilient; improve the health, well-being and engagement of our colleagues; and help keep our communities and our environment vibrant and healthy.

Just as we advance our business, we also continue to refine our approach to Environmental, Social and Governance (ESG) efforts.

Our approach goes beyond providing sound banking services. We have expanded our financial support, deepened partnerships with nonprofit organizations and advanced our colleague volunteer programs to help revitalize and strengthen our communities. We believe this work has a positive impact on our communities, while delivering long-term value to our customers and shareholders.

Underpinning all of these commitments, is our focus on Diversity, Equity and Inclusion (DE&I). We have increased the percentage of women and people of color in senior management positions. As referenced in the Awards & Accolades section of this report, Associated has also been regularly recognized for its support of active military, veterans and their families; people with disabilities and LGBTQ+ equality.

As a company, we are working to advance our environmental sustainability programming. In support of these efforts, our Environmental Sustainability Council, a cross-functional group of leaders, works to define and prioritize environmental sustainability initiatives as they relate to internal operations; products and services; partners and third-party vendors; colleagues and other stakeholders.

The pages following this letter highlight select outcomes of our ESG initiatives. We invite you to view the company's ESG report, available at investor.associatedbank.com, for an expanded view of these activities.

$3.37 billion

three-year commitment to support minority communities, low-to moderate-income communities and small businesses.

AWARD WINNING SATISFACTION

In 2021, Associated received the J.D. Power Award for ranking highest in the J.D. Power 2021 U.S. Retail Banking Satisfaction Study for the Upper Midwest Region* for customers' satisfaction with their retail bank.

* Associated Bank received the highest score in a tie in the Upper Midwest Region of the J.D. Power 2021 U.S. Retail Banking Satisfaction Study of customers' satisfaction with their primary bank. Visit jdpower.com/awards for more details.

PEOPLE-LED SOLUTIONS

We could not achieve any of this without the talented people who make up the Associated team. That's why we began our strategic planning efforts by listening to our colleagues. Through more than 175 listening sessions, involving hundreds of colleagues, we gained insights that helped inform several larger-scale initiatives and, perhaps most importantly, gave us a clear view of what our colleagues desire for the future of our company.

Above all else, our colleagues stated that they want to be part of a growing organization focused on helping their customers succeed and their communities thrive. After all, Associated's story is our colleagues' story, too.

The culture and opportunities provided for our colleagues will ultimately determine our success. That is why we put significant emphasis on colleague development and engagement.

Colleagues are encouraged to discuss with leaders their strengths, development opportunities, and career and performance goals. To support career advancement, we provide instructed and self-led learning, career paths and mentorship programs, and make financial assistance available for colleagues pursuing job-related courses or degrees. In 2021, 22% of colleagues, through nearly 900 internal promotions or lateral moves, advanced their careers at Associated.

REWARDING PERFORMANCE

In November, we raised our minimum hourly wage from $15 to $17 per hour. This investment impacted approximately 35% of employees. Recognizing our colleagues in this way has a meaningful impact on them, their families and our communities.

In July, Associated announced the promotion of John Thayer to the position of Executive Vice President, Head of Wealth Management. As a proven leader in our company and a trusted advisor to our customers, John's appointment to the Executive Leadership Team helps strengthen our perspectives and the overall delivery of wealth management and mass affluent strategies.

In November, we also announced the appointment of Dennis DeLoye to the role of Executive Vice President, Deputy Head of Community Markets and Northeast Wisconsin Regional President. A long-term resident of Wisconsin, Dennis has more than 30 years of industry experience, most recently as Community Market President for the company's Central and Northern Wisconsin regions.

Dennis will succeed Executive Vice President and Head of Community Markets Tim Lau, who intends to retire in the second quarter of this year. For the past 33 years, Tim has been one of the pillars of our company and an inspiration for colleagues throughout our organization. Topping his accolades is his leadership in reinvigorating Associated's presence in our community markets over the past decade.

Chief Financial Officer, Chris Del Moral-Niles, also intends to retire from Associated this year. During his 12 years with the company, Chris has been an instrumental member of our leadership team, strengthening our balance sheet and expanding it by over 50% during his tenure, which contributed meaningfully to our growth.

This year also marks the retirement of John Bergstrom from our Board of Directors. Since joining the Board in 2010, John has been a champion for Associated, our customers and our communities. We want to thank him for his years of service and the inspiration he has brought to our organization.

LOOKING AHEAD

All of us at Associated work with the belief that everything we achieve—we achieve together.

Over the past year, we have helped customers through some of the most dynamic economic times in modern history. We have also invested in our company with both the speed and scale to deliver increasing value to all of our stakeholders.

As a team, we have never been more committed to delivering success.

Our growth strategies, digital-forward focus and healthy balance sheet have positioned us well, and we are already seeing strong results. With this momentum driving us forward, we are confident that our accomplishments of the past year, together with our focused strategies, will help us reach our performance objectives in 2022 and beyond.

In closing, we want to thank our colleagues whose collective efforts made the past year successful and our shareholders for their continued confidence in Associated.

Sincerely,

Andrew J. Harmening

Andrew J. Harmening
President & Chief Executive Officer

Jay B. Williams

John (Jay) B. Williams
Chairman

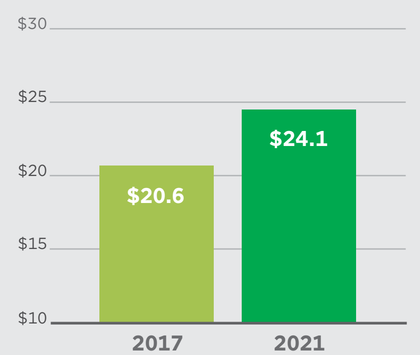
March 11, 2022

Financial Highlights

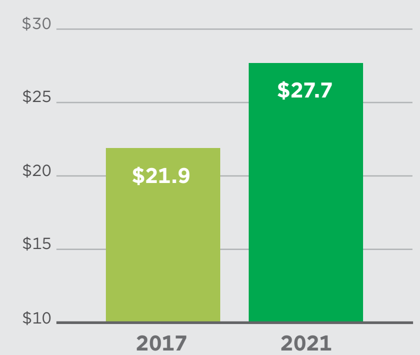
In thousands (except per common share data and performance ratios)	2017	2018	2019	2020	2021
ANNUAL AVERAGES					
Assets[1]	$ 29,467,324	$ 33,007,859	$ 33,046,604	$ 34,265,207	**$ 34,464,257**
Loans	20,592,383	22,718,297	23,122,797	24,537,648	**24,057,980**
Investment securities	6,028,262	6,912,921	6,194,465	5,226,571	**5,419,557**
Deposits	21,923,602	24,072,049	24,735,608	26,007,685	**27,693,414**
OPERATING RESULTS					
Net interest income	$ 741,220	$ 879,580	$ 835,674	$ 762,957	**$ 725,855**
Noninterest income	332,680	355,568	380,824	514,056	**332,364**
Total	1,073,900	1,235,148	1,216,498	1,277,012	**1,058,219**
Noninterest expense	709,133	821,799	793,988	776,034	**709,924**
Net income available to common equity	219,917	322,779	311,587	288,413	**333,883**
PERFORMANCE RATIOS					
Net interest margin	2.82 %	2.97 %	2.86 %	2.53 %	**2.39 %**
Return on average equity[2]	7.23	9.03	8.44	7.78	**8.60**
Return on average common equity Tier 1[2], [3]	10.43	13.15	12.59	11.23	**12.08**
Return on average tangible common equity[2]	10.86	14.06	13.21	11.99	**12.74**
Dividend payout ratio[4]	34.48	32.29	35.75	38.50	**34.55**
PERIOD END					
Common equity Tier 1[3]	$ 2,171,508	$ 2,449,721	$ 2,480,698	$ 2,706,010	**$ 2,808,289**
Common equity Tier 1 ratio[1], [3]	10.10 %	10.27 %	10.21 %	10.45 %	**10.31 %**
Allowance for credit losses on loans/nonaccrual loans	139 %	205 %	189 %	205 %	**245 %**
Nonperforming assets/total assets[1]	0.75 %	0.42 %	0.45 %	0.67 %	**0.46 %**
Associated Bank, N.A. Senior Credit Rating (Moody's)	A1	A1	A1	A1	**A1**
PER COMMON SHARE DATA					
Common shares outstanding	152,846	164,440	157,171	153,540	**149,343**
Diluted earnings per share	$ 1.42	$ 1.89	$ 1.91	$ 1.86	**$ 2.18**
Dividends per share	0.50	0.62	0.69	0.72	**0.76**
Book value per share	20.13	21.43	23.32	24.34	**25.66**
Tangible book value per share[2]	13.65	13.86	15.28	16.67	**17.87**

GROWING LOANS AND DEPOSITS

Average Loans $ in billions

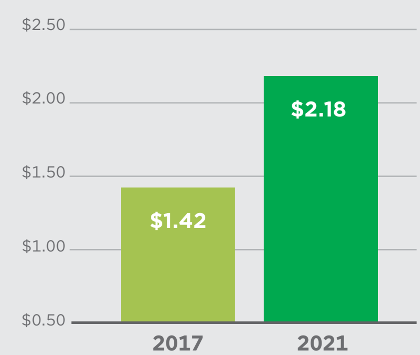


Average Deposits $ in billions



EXPANDING BOTTOM LINE

Diluted Earnings Per Share



[1] During the third quarter of 2019, the Corporation made a change in accounting policy to offset derivative assets and liabilities and cash collateral with the same counterparty where it has a legally enforceable master netting agreement in place. The change had no impact on either earnings or equity. The Corporation believes that this change is a preferable method of accounting as it provides a better reflection of the assets and liabilities on the face of the consolidated balance sheets. Adoption of this change was voluntary and has been adopted retrospectively. 2019, 2018, and 2017 total assets, average total assets, total risk-weighted assets, and capital ratios were restated for comparability.

[2] Non-GAAP financial measure–See table 26 in Item 7 of the Annual Report on Form 10-K for the fiscal year ended December 31, 2021, and page 10 of the financial tables in the 4Q 2021 earnings press release published January 20, 2022, for a reconciliation of non-GAAP financial measures to the most comparable GAAP financial measures. These financial measures have been included as they are considered to be critical metrics with which to analyze financial condition and capital strength.

[3] The Federal Reserve establishes regulatory capital requirements, including well-capitalized standards for the Corporation. The Corporation follows Basel III, subject to certain transition provisions. These regulatory capital measurements are used by management, regulators, investors, and analysts to assess, monitor and compare the quality and composition of the Corporation's capital with the capital of other financial services companies.

[4] Ratio is calculated by dividing dividends paid for the period by basic earnings per share for the same period.

Your money works here.®

We believe our success is directly tied to how well we take care of our customers, our colleagues, our communities and our environment. This requires that we integrate both business and Environmental, Social and Governance (ESG) priorities into our work.

We've focused our efforts on programs designed to improve the economic health of our markets; promote Diversity, Equity & Inclusion (DE&I) within our company and communities; deliver a safe, productive and engaging workplace and culture; and preserve the environment.

We intend to take a continuous approach to ESG programming. In the past year, we evolved our ESG reporting, providing disclosures that are aligned to both the Sustainability Accounting Standards Board and Task Force on Climate-related Financial Disclosures frameworks. We also established new corporate position statements on human rights, environmental and social lending, and environmental risk management. This corresponds with our own commitment of setting strategic and achievable ESG objectives that help guide our work and improve our performance.

In this report, we highlight some of our core efforts and outcomes. We invite you to view the company's ESG report, available at investor.associatedbank.com, for a more comprehensive view of Associated's ESG activities.

COLLEAGUE EXPERIENCE, ENGAGEMENT & WELL-BEING

We strive to create great colleague experiences and work to provide colleagues the opportunity to succeed and play an active role in shaping our culture.

Each year, more than 80% of colleagues complete our workplace survey, helping us assess our current workplace environment and colleague engagement. We expanded our voice of colleague feedback in 2021 with the addition of an executive-led 100 Days of Listening program. Insights helped us understand opportunities for increased engagement, a more productive work environment and additional collaboration across the organization.

We continue to ramp up our colleague well-being programs, which focus on physical, mental and financial health. In 2021, more than 2,500 colleagues were enrolled in the company's digital well-being platform. In addition, nearly 3,500 insured colleagues, spouses and domestic partners participated in Associated's confidential biometric screenings.

85% of colleagues participated in our annual workplace survey, providing 8,000+ comments.

175+ executive-led listening sessions held involving hundreds of colleagues.

78% of colleagues feel Associated supports their well-being.

Inclusive
Flexible
Diverse

Top three words that colleagues used to describe Associated Bank's culture.

REFINING OUR DE&I FOCUS

The strength of our DE&I program has enabled us to break down barriers within our company and build a workforce that better represents the diversity within all our communities. This program includes concerted efforts to hire, promote and retain colleagues from underrepresented groups.

To advance our efforts, we've established specific, executive-level goals, primarily focused on attracting, developing and advancing diverse talent. Champions within each line of business help build and set strategies in support of these goals. They also work to promote and encourage colleague engagement in company-sponsored programs.

DE&I training is embedded in our learning and development programs. Colleagues are also encouraged to participate in corporate and Colleague Resource Group (CRG) events and volunteer activities. In 2021, we established our Black CRG and provided more than 130 unique DE&I and CRG events. We also showcased Associated's commitment to DE&I and promoted public advocacy through the sponsorship of external programs and events, and greater social media engagement.

AssociatedBank

Our DE&I efforts are strengthened by the company's seven Colleague Resource Groups that work to create greater organizational awareness of and take specific actions to address the unique needs of diverse populations within our company and our markets.

Black
Cultural Awareness
Forward Abilities
Pride & Equality
Veterans
Women's
Young Professionals

84% of colleagues feel Associated values diversity & inclusion.

Women or people of color represent 63% of all Assistant Vice President roles, and women represent 32% of all Senior Vice President Roles.

Approximately 43% of colleagues participate in one or more Colleague Resource Group.

"I have experienced much personal growth by being involved in a CRG. I've had tough conversations, learned a lot about who I am as a person, and was able to identify ways in which I could evolve my thinking and be a better advocate."

Associated Colleague
DE&I Programming
Survey Response

2021
COMMUNITY COMMITMENTS[1]

25% of our branches in low- to moderate-income (LMI) census tracts and 9% in majority-minority communities.

6,278 residential mortgages or approximately $1.2 billion in loans to support LMI and minority homeownership.

$324 million in loans to small businesses.

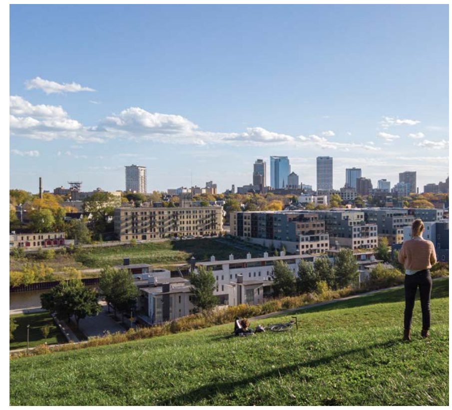
$465 million in community development loans and investments.

$3.1 million in CRA-qualifying community development grants.

2,108 colleagues collectively reporting 42,000 hours of volunteer time equal to $1.2 million in community service.

(1) Figures as of year-end December 31, 2021.

COMMUNITY COMMITMENT



Associated is proud to play an active role in helping our communities grow and prosper. The basis of our approach is for minority and low- to moderate-income (LMI) communities to have access to sound financial products and services. This is complemented by our efforts to build a more inclusive and equitable environment both within our company and in the communities we serve.

Our 2021-2023 Community Commitment Plan sets forth our commitment to lend or invest $3.37 billion to support minority communities, LMI communities and small businesses in our three-state branch footprint of Wisconsin, Illinois and Minnesota.

Our ongoing work with our Community Advisory Councils continues to be instrumental in helping define opportunities aligned with these efforts. Our colleagues also play an active role through their work and volunteer efforts. In 2021, they recorded more than 42,000 hours of volunteer time, including 4,369 CRA-qualified service hours, and approximately 150 financial education seminars. Since our volunteer program began, colleagues have recorded more than 565,000 hours of volunteer time.

Access to services

We strive to strike a fine balance between maintaining a traditional branch banking experience and providing cutting-edge digital banking options for all customers. As of December 31, 2021, more than 64% of Associated customers actively use digital banking services. Importantly, these services help extend our reach into underserved communities. Mobile banking, in particular, gives un/under-banked populations access to services when there is no transportation, home internet service or traditional banking option available.

DIGITAL ADOPTION BY CENSUS TRACT[2]

Currently, a larger percentage of customers in low- to moderate-income (LMI) communities use digital channels to access banking services, compared to non-LMI communities.

Branch Type	Online Enrollment	Active Online Users	Mobile Enrollment	Active Mobile Users
LMI Branches	68.7%	59.2%	49.5%	46.2%
Non-LMI Branches	66.9%	58.3%	46.9%	43.6%

(2) Primary customer based on the CRA rating of the branch to which the customer is assigned; data as of July 2021.

ENVIRONMENTAL SUSTAINABILITY

We recognize the impact Associated plays in environmental sustainability isn't limited to how we operate our company, it's also in how we involve our customers, colleagues and communities. Our environmental sustainability program includes policies and systems to mitigate risks, efforts to reduce our carbon footprint and programs to enhance engagement across our stakeholder groups.

We reduce our daily energy consumption through the use of occupancy sensors, power management processes, Energy Star compliant appliances and LED lighting. Along with these efforts, Associated is an anchor subscriber to solar farms in Illinois and Minnesota, providing the platform for renewable energy to be generated and delivered directly to the local utilities where the farms exist.

We are working to reduce internal print production by both improving our internal processes and supporting the increased migration of customers to digital services. In celebration of our customers' engagement in this process, we planted a tree for each customer who switched to paperless banking statements during the year. Tree donations were made through a partnership with the Priceless Planet Coalition, an effort which unites merchants, banks, cities and consumers to make meaningful investments to preserve the environment through the restoration of 100 million trees over five years.

Working toward environmental equity

To help rectify environmental equity issues that disproportionately affect LMI and majority-minority communities, Associated provided more than $100,000 in grants to fund nonprofit organizations' environmental sustainability programs in 2021. These programs focus on:

- Environmental education
- Green- and food-related small business development
- Sustainable housing and home repairs
- Sustainable energy- and organic farming-related workforce development
- The refurbishment and distribution of technology equipment

ENVIRONMENTAL SUSTAINABILITY HIGHLIGHTS

17% reduction in energy consumption

and approximately 6.0M kwh of annual electricity savings through the company's LED retrofit program since 2016.

11.5 million-page average reduction in print production over the past five years,

representing 23,000 reams of paper and 1,380 trees.

713 tons (approximately) of shredding efforts in 2021,

that protect the environment and our customers' security.

Awards & Accolades

CORPORATE

Top 100 Bank Leading the US
2022 • GoBankingRates

Best Place to Work for LGBTQ+ Equality[1]
2022 • Corporate Equality Index

Top Workplaces USA
2021, 2022 • Energage

America's Best Banks
2019-2022 • Forbes

Secretary of Defense Employer Support Freedom Award[2]
2021 • Employer Support of the Guard & Reserve

50/50 Women on Boards
2021 • "3+" Company

Bank Honor Roll
2021 • Keefe, Bruyette & Woods, Inc.

Top Employer
2021 • Equal Opportunity Magazine

Top Employer
2020, 2021 • DiversityJobs.com

Above and Beyond Award
2019, 2021 • Employer Support of the Guard & Reserve

Top 50 Employer
2018 – 2021 • CAREERS & the disABLED Magazine

Patriot Award
2018, 2020 • Employer Support of the Guard & Reserve

Best for Vets: Employers
2017 – 2021 • Military Times

CORPORATE (CONT.)

Top Veteran-Friendly Company
2016 – 2020 • U.S. Veterans Magazine

2020 Women on Boards
2014 – 2020 • Winning 'W' Company

SERVICES

Fannie Mae STAR™ Performer[3]
2012 – 2021

COMMUNITY

Wintrust Partners in Innovation Award
2021 • Mercy Housing Lakefront

Largest Corporate Charitable Contributor in Wisconsin
2016, 2018, 2019, 2020 • Milwaukee Business Journal

CUSTOMER EXPERIENCE

#1 in Customer Satisfaction Study with Retail Banking in the Upper Midwest[4]
2021 • J.D. Power

HSA Top 20 Provider
2021 • Morningstar Manager Research

Top Direct Lenders: Best of the Best 2021
2018, 2021 • Midwest Real Estate News

Circle of Excellence Member[5]
2020 • WEX's Health Division

WORKPLACE

Silver Well Workplace
2021 • Wellness Council of America

Best of the Bay
2021 • Green Bay Press Gazette

Best of Madison
2021 • Madison Magazine

Vets Ready Initiative Award[6]
2020, 2021 • Department of Workforce Development

Workplace Health Achievement
2018 – 2021 • American Heart Association

Top Workplaces Milwaukee
2012 – 2015, 2018 – 2021 • Milwaukee Journal Sentinel

Top Workplaces Madison
2020, 2021 • Wisconsin State Journal

Top Workplaces Chicago
2019, 2021 • Chicago Tribune

Best of Milwaukee
2015, 2018 – 2021 • Shepherd Express

One of the Best Banks in Illinois[7]
2020 • AdvisoryHQ

Top Workplaces St. Louis
2018 – 2020 • St. Louis Post Dispatch

Best of the Best
2014 – 2016, 2018 • Midwest Real Estate News

(1) The Human Rights Campaign Foundation is the educational arm of the Human Rights Campaign (HRC), America's largest civil rights organization working to achieve equality for lesbian, gay, bisexual, transgender and queer (LGBTQ+) people.

(2) The highest recognition given by the U.S. Government to employers for their outstanding support of employees serving in the Guard and Reserve.

(3) Fannie Mae recognized Associated for outstanding mortgage "general servicing" as part of its Servicer Total Achievement and Rewards™ (STAR™) Program. General servicing encompasses customer service, loan administration and other areas.

(4) Associated Bank received the highest score in a tie in the Upper Midwest Region of the J.D. Power 2021 U.S. Retail Banking Satisfaction Study of customers' satisfaction with their primary bank. Visit jdpower.com/awards for more details.

(5) WEX is a leading financial technology service provider that recognized Associated Bank through its health division's 2019 Partner Excellence Awards.

(6) The Department of Workforce Development (DWD) recognized employers who go above and beyond to support veterans and their families.

(7) AdvisoryHQ recognizes banks that are financially sound with strong values and cost-effective financial solutions to fit every budget. Associated Bank was recognized specifically for its wide range of banking services.

Leadership

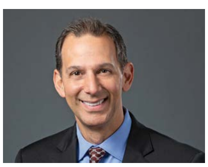
BOARD OF DIRECTORS

John (Jay) B. Williams
Chairman,
Associated Banc-Corp

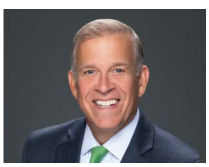
John F. Bergstrom
Executive Chairman of
Bergstrom Corporation

R. Jay Gerken
Director of 17 mutual funds
associated with Sanford C.
Bernstein Fund, Inc.

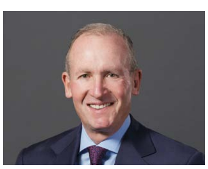
Judith P. Greffin
Past Chief
Investment Officer,
Allstate Corporation



Michael J. Haddad
Chair of the Board,
Schreiber Foods, Inc.

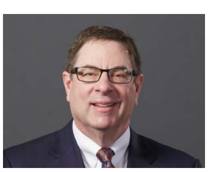


Andrew J. Harmening
President & Chief Executive
Officer, Associated
Banc-Corp



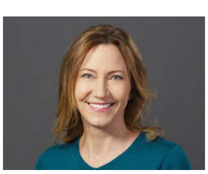
Robert A. Jeffe
Senior Operating Partner,
BlackWatch

Eileen A. Kamerick
Adjunct Professor of Law &
Consultant



Gale E. Klappa
Executive Chairman of
WEC Energy Group

Cory L. Nettles
Founder & Managing
Director, Generation
Growth Capital, Inc.



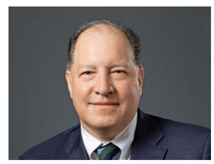
Karen T. van Lith
Founder & Chief Executive
Officer of APEL
Worldwide, LLC

EXECUTIVE COMMITTEE

Andrew J. Harmening
President &
Chief Executive Officer

Patrick E. Ahern
Chief Credit Officer

Matthew R. Braeger
Chief Audit Executive



Christopher J. Del Moral-Niles
Chief Financial Officer

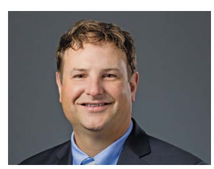
Dennis M. DeLoye
Deputy Head of Community
Markets & Northeast
Wisconsin Regional President

Angie M. DeWitt
Chief Human
Resources Officer

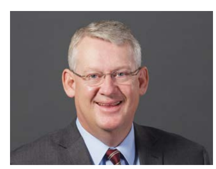
Randall J. Erickson
General Counsel
& Corporate Secretary

Nicole M. Kitowski
Chief Risk Officer

Timothy J. Lau
Head of Community
Markets & Facilities



Michael O. Meinolf
Chief Information Officer



Paul G. Schmidt
Head of Commercial
Real Estate

Tammy C. Stadler
Corporate Controller &
Chief Accounting Officer

David L. Stein
Head of Consumer &
Business Banking and
Madison Market President

John P. Thayer
Head of Wealth
Management &
Chief Executive Officer
of Associated Trust
Company, NA

John A. Utz
Head of Corporate
Banking & Milwaukee
Market President

Corporate Headquarters
433 Main St., Green Bay, WI 54301 | 920-491-7500

ANNUAL MEETING OF SHAREHOLDERS

The Annual Meeting of Shareholders will be held virtually, via live webcast, on Tuesday, April 26, 2022, at 11 a.m. (CDT). Shareholders are invited to attend the meeting online, vote shares electronically, and submit questions prior to and during the meeting by visiting virtualshareholdermeeting.com/ASB2022

Proxy materials for the Annual Meeting of Shareholders are available via the internet. Shareholders as of the March 1, 2022, record date have been mailed a notice regarding the availability of proxy materials, which includes the internet website address where the proxy materials can be viewed and shares voted. It also includes instructions for requesting a paper copy of the proxy materials via telephone, internet website or email.

ANNUAL REPORT ON FORM 10-K

Shareholders and other interested persons may obtain a copy of Associated Banc-Corp's 2021 Annual Report on Form 10-K on the Investor Relations section of our website at Investor.AssociatedBank.com or by calling or writing Investor Relations.

SHAREOWNER INQUIRIES

800-468-9716 or 651-450-4064
24/7 automated system or representative from
7 a.m. – 7 p.m. (CT), Monday through Friday. Additional information is available at Investor.AssociatedBank.com.

TRANSFER AGENT AND REGISTRAR CORRESPONDENCE

EQ Shareowner Services
1110 Centre Pointe Curve
Suite 101
Mendota Heights, MN 55120
800-468-9716 or 651-450-4064
www.shareowneronline.com

INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

KPMG LLP

COMMON STOCK LISTING & TRADING

Traded: NYSE | Stock Market Symbol: ASB

Associated Bank®

IMPORTANT NOTE REGARDING FORWARD-LOOKING STATEMENTS: Statements made in this Summary Annual Report which are not purely historical are forward-looking statements, as defined in the Private Securities Litigation Reform Act of 1995. This includes any statements regarding management's plans, objectives, or goals for future operations, products or services, and forecasts of its revenues, earnings, or other measures of performance. Such forward-looking statements may be identified by the use of words such as "believe," "expect," "anticipate," "plan," "estimate," "should," "will," "intend," "target," "outlook," "project," "guidance," or similar expressions. Forward-looking statements are based on current management expectations and, by their nature, are subject to risks and uncertainties. Actual results may differ materially from those contained in the forward-looking statements. Factors which may cause actual results to differ materially from those contained in such forward-looking statements include those identified in Associated's most recent Form 10-K and subsequent SEC filings. Such factors are incorporated herein by reference.