

United States
Securities and Exchange Commission
Washington, D.C. 20549
Form 10-Q

☒ **Quarterly Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934**
For the quarterly period ended: **September 30, 2023**

Or

☐ **Transition Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934**
For the transition period from _____ to _____

Commission file number: 001-13221

Cullen/Frost Bankers, Inc.

(Exact name of registrant as specified in its charter)

<u>Texas</u> (State or other jurisdiction of incorporation or organization)	<u>74-1751768</u> (I.R.S. Employer Identification No.)
<u>111 W. Houston Street, San Antonio, Texas</u> (Address of principal executive offices)	<u>78205</u> (Zip code)
<u>(210) 220-4011</u> (Registrant's telephone number, including area code)	

N/A

(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, \$.01 Par Value	CFR	New York Stock Exchange
Depository Shares, each representing a 1/40th interest in a share of 4.450% Non-Cumulative Perpetual Preferred Stock, Series B	CFR.PrB	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, smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

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

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

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

As of October 20, 2023, there were 64,047,190 shares of the registrant's Common Stock, \$.01 par value, outstanding.

Cullen/Frost Bankers, Inc.
Quarterly Report on Form 10-Q
September 30, 2023

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Part I. Financial Information
Item 1. Financial Statements (Unaudited)
Cullen/Frost Bankers, Inc.
Consolidated Balance Sheets

(Dollars in thousands, except per share amounts)

	September 30, 2023	December 31, 2022
Assets:		
Cash and due from banks	\$ 574,654	\$ 691,553
Interest-bearing deposits	6,955,779	11,128,902
Federal funds sold	3,000	120,527
Resell agreements	84,650	87,150
Total cash and cash equivalents	7,618,083	12,028,132
Securities held to maturity, net of allowance for credit losses of \$310 at September 30, 2023 and \$158 at December 31, 2022	3,628,123	2,639,083
Securities available for sale, at estimated fair value	16,117,089	18,243,605
Trading account securities	29,341	28,045
Loans, net of unearned discounts	18,399,259	17,154,969
Less: Allowance for credit losses on loans	(242,235)	(227,621)
Net loans	18,157,024	16,927,348
Premises and equipment, net	1,166,544	1,102,695
Accrued interest receivable and other assets	2,030,818	1,923,468
Total assets	\$ 48,747,022	\$ 52,892,376
Liabilities:		
Deposits:		
Non-interest-bearing demand deposits	\$ 14,631,456	\$ 17,598,234
Interest-bearing deposits	26,360,779	26,355,962
Total deposits	40,992,235	43,954,196
Federal funds purchased	25,950	51,650
Repurchase agreements	3,722,245	4,660,641
Junior subordinated deferrable interest debentures, net of unamortized issuance costs	123,112	123,069
Subordinated notes, net of unamortized issuance costs	99,452	99,335
Accrued interest payable and other liabilities	784,277	866,257
Total liabilities	45,747,271	49,755,148
Shareholders' Equity:		
Preferred stock, par value \$0.01 per share; 10,000,000 shares authorized; 150,000 Series B shares (\$1,000 liquidation preference) issued at September 30, 2023 and December 31, 2022	145,452	145,452
Common stock, par value \$0.01 per share; 210,000,000 shares authorized; 64,404,582 shares issued at September 30, 2023 and 64,354,695 at December 31, 2022	644	643
Additional paid-in capital	1,043,865	1,029,756
Retained earnings	3,626,799	3,309,671
Accumulated other comprehensive income (loss), net of tax	(1,778,827)	(1,348,294)
Treasury stock, at cost; 387,679 shares at September 30, 2023	(38,182)	—
Total shareholders' equity	2,999,751	3,137,228
Total liabilities and shareholders' equity	\$ 48,747,022	\$ 52,892,376

See accompanying Notes to Consolidated Financial Statements.

Cullen/Frost Bankers, Inc.
Consolidated Statements of Income
(Dollars in thousands, except per share amounts)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
Interest income:				
Loans, including fees	\$ 307,035	\$ 205,932	\$ 867,302	\$ 522,588
Securities:				
Taxable	103,875	68,311	303,610	167,734
Tax-exempt	56,918	59,450	184,189	173,394
Interest-bearing deposits	91,904	74,257	278,897	106,971
Federal funds sold	183	316	1,246	428
Resell agreements	1,197	64	3,391	78
Total interest income	561,112	408,330	1,638,635	971,193
Interest expense:				
Deposits	138,779	42,682	357,034	62,187
Federal funds purchased	288	249	1,283	336
Repurchase agreements	33,195	7,529	99,960	9,837
Junior subordinated deferrable interest debentures	2,260	1,159	6,354	2,515
Subordinated notes	1,164	1,164	3,492	3,492
Total interest expense	175,686	52,783	468,123	78,367
Net interest income	385,426	355,547	1,170,512	892,826
Credit loss expense	11,185	—	30,190	—
Net interest income after credit loss expense	374,241	355,547	1,140,322	892,826
Non-interest income:				
Trust and investment management fees	37,616	38,552	113,152	114,984
Service charges on deposit accounts	23,603	22,960	68,969	69,570
Insurance commissions and fees	13,636	13,152	45,528	41,536
Interchange and card transaction fees	4,672	4,614	14,811	13,751
Other charges, commissions, and fees	13,128	11,095	36,922	30,609
Net gain (loss) on securities transactions	12	—	66	—
Other	13,331	9,448	35,343	28,688
Total non-interest income	105,998	99,821	314,791	299,138
Non-interest expense:				
Salaries and wages	137,562	127,189	401,102	355,399
Employee benefits	26,527	21,680	87,241	66,633
Net occupancy	31,581	28,133	93,644	83,923
Technology, furniture, and equipment	35,278	30,781	100,802	89,859
Deposit insurance	6,033	4,279	18,480	11,636
Other	56,275	45,836	162,171	135,527
Total non-interest expense	293,256	257,898	863,440	742,977
Income before income taxes	186,983	197,470	591,673	448,987
Income taxes	31,332	27,710	96,251	61,011
Net income	155,651	169,760	495,422	387,976
Preferred stock dividends	1,668	1,668	5,006	5,006
Net income available to common shareholders	\$ 153,983	\$ 168,092	\$ 490,416	\$ 382,970
Earnings per common share:				
Basic	\$ 2.38	\$ 2.60	\$ 7.56	\$ 5.92
Diluted	2.38	2.59	7.54	5.90

See accompanying Notes to Consolidated Financial Statements.

Cullen/Frost Bankers, Inc.
Consolidated Statements of Comprehensive Income (Loss)
(Dollars in thousands)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
Net income	\$ 155,651	\$ 169,760	\$ 495,422	\$ 387,976
Other comprehensive income (loss), before tax:				
Securities available for sale and transferred securities:				
Change in net unrealized gain/loss during the period	(600,441)	(829,324)	(547,035)	(2,376,642)
Change in net unrealized gain on securities transferred to held to maturity	(164)	(174)	(486)	(572)
Reclassification adjustment for net (gains) losses included in net income	(12)	—	(66)	—
Total securities available for sale and transferred securities	(600,617)	(829,498)	(547,587)	(2,377,214)
Defined-benefit post-retirement benefit plans:				
Reclassification adjustment for net amortization of actuarial gain/loss included in net income as a component of net periodic cost (benefit)	869	741	2,609	2,223
Total defined-benefit post-retirement benefit plans	869	741	2,609	2,223
Other comprehensive income (loss), before tax	(599,748)	(828,757)	(544,978)	(2,374,991)
Deferred tax expense (benefit)	(125,948)	(174,038)	(114,445)	(498,748)
Other comprehensive income (loss), net of tax	(473,800)	(654,719)	(430,533)	(1,876,243)
Comprehensive income (loss)	<u>\$ (318,149)</u>	<u>\$ (484,959)</u>	<u>\$ 64,889</u>	<u>\$ (1,488,267)</u>

See accompanying Notes to Consolidated Financial Statements.

Cullen/Frost Bankers, Inc.
Consolidated Statements of Changes in Shareholders' Equity
(Dollars in thousands, except per share amounts)

	Preferred Stock	Common Stock	Additional Paid-In Capital	Retained Earnings	Accumulated Other Comprehensive Income (Loss), Net of Tax	Treasury Stock	Total
Three months ended:							
September 30, 2023							
Balance at beginning of period	\$ 145,452	\$ 644	\$ 1,040,754	\$ 3,532,542	\$ (1,305,027)	\$ (27,623)	\$ 3,386,742
Net income	—	—	—	155,651	—	—	155,651
Other comprehensive income (loss), net of tax	—	—	—	—	(473,800)	—	(473,800)
Stock option exercises/stock unit conversions (8,483 shares)	—	—	—	(217)	—	813	596
Stock-based compensation expense recognized in earnings	—	—	3,111	—	—	—	3,111
Purchase of treasury stock (111,956 shares)	—	—	—	—	—	(11,372)	(11,372)
Cash dividends – Series B preferred stock (approximately \$11.13 per share which is equivalent to approximately \$0.28 per depositary share)	—	—	—	(1,668)	—	—	(1,668)
Cash dividends – common stock (\$0.92 per share)	—	—	—	(59,509)	—	—	(59,509)
Balance at end of period	<u>\$ 145,452</u>	<u>\$ 644</u>	<u>\$ 1,043,865</u>	<u>\$ 3,626,799</u>	<u>\$ (1,778,827)</u>	<u>\$ (38,182)</u>	<u>\$ 2,999,751</u>
September 30, 2022							
Balance at beginning of period	\$ 145,452	\$ 642	\$ 1,015,451	\$ 3,070,109	\$ (874,206)	\$ (10,473)	\$ 3,346,975
Net income	—	—	—	169,760	—	—	169,760
Other comprehensive income (loss), net of tax	—	—	—	—	(654,719)	—	(654,719)
Stock option exercises/stock unit conversions (88,350 shares)	—	—	—	(1,918)	—	7,188	5,270
Stock-based compensation expense recognized in earnings	—	—	3,173	—	—	—	3,173
Cash dividends – Series B preferred stock (approximately \$11.13 per share which is equivalent to approximately \$0.28 per depositary share)	—	—	—	(1,668)	—	—	(1,668)
Cash dividends – common stock (\$0.87 per share)	—	—	—	(56,319)	—	—	(56,319)
Balance at end of period	<u>\$ 145,452</u>	<u>\$ 642</u>	<u>\$ 1,018,624</u>	<u>\$ 3,179,964</u>	<u>\$ (1,528,925)</u>	<u>\$ (3,285)</u>	<u>\$ 2,812,472</u>

See accompanying Notes to Consolidated Financial Statements

Cullen/Frost Bankers, Inc.
Consolidated Statements of Changes in Shareholders' Equity

(Dollars in thousands, except per share amounts)

	Preferred Stock	Common Stock	Additional Paid-In Capital	Retained Earnings	Accumulated Other Comprehensive Income (Loss), Net of Tax	Treasury Stock	Total
Nine months ended:							
September 30, 2023							
Balance at beginning of period	\$ 145,452	\$ 643	\$ 1,029,756	\$ 3,309,671	\$ (1,348,294)	\$ —	\$ 3,137,228
Net income	—	—	—	495,422	—	—	495,422
Other comprehensive income (loss), net of tax	—	—	—	—	(430,533)	—	(430,533)
Stock option exercises/stock unit conversions (72,496 shares)	—	1	1,463	(736)	—	2,314	3,042
Stock-based compensation expense recognized in earnings	—	—	12,646	—	—	—	12,646
Purchase of treasury stock (410,288 shares)	—	—	—	—	—	(40,496)	(40,496)
Cash dividends – Series B preferred stock (approximately \$33.38 per share which is equivalent to approximately \$0.83 per depositary share)	—	—	—	(5,006)	—	—	(5,006)
Cash dividends – common stock (\$2.66 per share)	—	—	—	(172,552)	—	—	(172,552)
Balance at end of period	<u>\$ 145,452</u>	<u>\$ 644</u>	<u>\$ 1,043,865</u>	<u>\$ 3,626,799</u>	<u>\$ (1,778,827)</u>	<u>\$ (38,182)</u>	<u>\$ 2,999,751</u>
September 30, 2022							
Balance at beginning of period	\$ 145,452	\$ 642	\$ 1,009,921	\$ 2,956,966	\$ 347,318	\$ (20,744)	\$ 4,439,555
Net income	—	—	—	387,976	—	—	387,976
Other comprehensive income (loss), net of tax	—	—	—	—	(1,876,243)	—	(1,876,243)
Stock option exercises/stock unit conversions (232,612 shares)	—	—	—	(6,695)	—	18,455	11,760
Stock-based compensation expense recognized in earnings	—	—	8,703	—	—	—	8,703
Purchase of treasury stock (7,459 shares)	—	—	—	—	—	(996)	(996)
Cash dividends – Series B preferred stock (approximately \$33.38 per share which is equivalent to approximately \$0.83 per depositary share)	—	—	—	(5,006)	—	—	(5,006)
Cash dividends – common stock (\$2.37 per share)	—	—	—	(153,277)	—	—	(153,277)
Balance at end of period	<u>\$ 145,452</u>	<u>\$ 642</u>	<u>\$ 1,018,624</u>	<u>\$ 3,179,964</u>	<u>\$ (1,528,925)</u>	<u>\$ (3,285)</u>	<u>\$ 2,812,472</u>

See accompanying Notes to Consolidated Financial Statements

Cullen/Frost Bankers, Inc.
Consolidated Statements of Cash Flows
(Dollars in thousands)

	Nine Months Ended September 30,	
	2023	2022
Operating Activities:		
Net income	\$ 495,422	\$ 387,976
Adjustments to reconcile net income to net cash from operating activities:		
Credit loss expense	30,190	—
Deferred tax expense (benefit)	(3,047)	(3,378)
Accretion of loan discounts	(13,074)	(10,572)
Securities premium amortization (discount accretion), net	50,614	76,328
Net (gain) loss on securities transactions	(66)	—
Depreciation and amortization	56,257	53,303
Net (gain) loss on sale/write-down of assets/foreclosed assets	(194)	109
Stock-based compensation	12,646	8,703
Net tax benefit from stock-based compensation	583	2,894
Earnings on life insurance policies	(2,164)	(1,561)
Net change in:		
Trading account securities	(1,020)	154
Lease right-of-use assets	17,347	18,151
Accrued interest receivable and other assets	55,440	(63,382)
Accrued interest payable and other liabilities	(137,088)	71,187
Net cash from operating activities	561,846	539,912
Investing Activities:		
Securities held to maturity:		
Purchases	(1,147,624)	(878,434)
Maturities, calls and principal repayments	154,465	557,901
Securities available for sale:		
Purchases	(13,445,382)	(6,702,519)
Sales	1,904,067	—
Maturities, calls and principal repayments	13,073,663	1,140,939
Proceeds from sale of loans	2,215	2,365
Net change in loans	(1,257,033)	(617,981)
Benefits received on life insurance policies	1,000	1,332
Proceeds from sales of premises and equipment	1,282	47
Purchases of premises and equipment	(118,062)	(55,635)
Proceeds from sales of repossessed properties	583	2,585
Net cash from investing activities	(830,826)	(6,549,400)
Financing Activities:		
Net change in deposits	(2,961,961)	3,864,490
Net change in short-term borrowings	(964,096)	(657,785)
Proceeds from stock option exercises	3,042	11,760
Purchase of treasury stock	(40,496)	(996)
Cash dividends paid on preferred stock	(5,006)	(5,006)
Cash dividends paid on common stock	(172,552)	(153,277)
Net cash from financing activities	(4,141,069)	3,059,186
Net change in cash and cash equivalents	(4,410,049)	(2,950,302)
Cash and cash equivalents at beginning of period	12,028,132	16,583,000
Cash and cash equivalents at end of period	\$ 7,618,083	\$ 13,632,698

See accompanying Notes to Consolidated Financial Statements.

Notes to Consolidated Financial Statements

(Table amounts in thousands, except for share and per share amounts)

Note 1 - Significant Accounting Policies

Nature of Operations. Cullen/Frost Bankers, Inc. (“Cullen/Frost”) is a financial holding company and a bank holding company headquartered in San Antonio, Texas that provides, through its subsidiaries, a broad array of products and services throughout numerous Texas markets. The terms “Cullen/Frost,” “the Corporation,” “we,” “us” and “our” mean Cullen/Frost Bankers, Inc., and its subsidiaries, when appropriate. In addition to general commercial and consumer banking, other products and services offered include trust and investment management, insurance, brokerage, mutual funds, leasing, treasury management, capital markets advisory and item processing.

Basis of Presentation. The consolidated financial statements in this Quarterly Report on Form 10-Q include the accounts of Cullen/Frost and all other entities in which Cullen/Frost has a controlling financial interest. All significant intercompany balances and transactions have been eliminated in consolidation. The accounting and financial reporting policies we follow conform, in all material respects, to accounting principles generally accepted in the United States and to general practices within the financial services industry.

The consolidated financial statements in this Quarterly Report on Form 10-Q have not been audited by an independent registered public accounting firm, but in the opinion of management, reflect all adjustments necessary for a fair presentation of our financial position and results of operations. All such adjustments were of a normal and recurring nature. The consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States for interim financial information and with the instructions to Form 10-Q adopted by the Securities and Exchange Commission (“SEC”). Accordingly, the financial statements do not include all of the information and footnotes required by accounting principles generally accepted in the United States for complete financial statements and should be read in conjunction with our consolidated financial statements, and notes thereto, for the year ended December 31, 2022, included in our Annual Report on Form 10-K filed with the SEC on February 3, 2023 (the “[2022 Form 10-K](#)”). Operating results for the interim periods disclosed herein are not necessarily indicative of the results that may be expected for a full year or any future period.

Use of Estimates. The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements. Actual results could differ from those estimates. The allowance for loan losses and the fair values of financial instruments and the status of contingencies are particularly subject to change.

Cash Flow Reporting. Additional cash flow information was as follows:

	Nine Months Ended September 30,	
	2023	2022
Cash paid for interest	\$ 435,099	\$ 71,848
Cash paid for income taxes	97,000	78,500
Significant non-cash transactions:		
Unsettled securities transactions	276	470,813
Right-of-use lease assets obtained in exchange for lessee operating lease liabilities	9,964	23,959

Accounting Changes, Reclassifications and Restatements. Certain items in prior financial statements have been reclassified to conform to the current presentation.

Note 2 - Securities

Securities - Held to Maturity. A summary of the amortized cost, fair value and allowance for credit losses related to securities held to maturity as of September 30, 2023 and December 31, 2022 is presented below.

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value	Allowance for Credit Losses	Net Carrying Amount
September 30, 2023						
Residential mortgage-backed securities	\$ 1,258,155	\$ —	\$ 113,142	\$ 1,145,013	\$ —	\$ 1,258,155
States and political subdivisions	2,368,778	48	283,585	2,085,241	(310)	2,368,468
Other	1,500	—	63	1,437	—	1,500
Total	<u>\$ 3,628,433</u>	<u>\$ 48</u>	<u>\$ 396,790</u>	<u>\$ 3,231,691</u>	<u>\$ (310)</u>	<u>\$ 3,628,123</u>
December 31, 2022						
Residential mortgage-backed securities	\$ 526,122	\$ —	\$ 65,322	\$ 460,800	\$ —	\$ 526,122
States and political subdivisions	2,111,619	13,048	119,033	2,005,634	(158)	2,111,461
Other	1,500	—	69	1,431	—	1,500
Total	<u>\$ 2,639,241</u>	<u>\$ 13,048</u>	<u>\$ 184,424</u>	<u>\$ 2,467,865</u>	<u>\$ (158)</u>	<u>\$ 2,639,083</u>

All mortgage-backed securities included in the above table were issued by U.S. government agencies and corporations. The carrying value of held-to-maturity securities pledged to secure public funds, trust deposits, repurchase agreements and for other purposes, as required or permitted by law was \$811.4 million and \$256.3 million at September 30, 2023 and December 31, 2022, respectively. Accrued interest receivable on held-to-maturity securities totaled \$22.9 million and \$30.2 million at September 30, 2023 and December 31, 2022, respectively and is included in accrued interest receivable and other assets in the accompanying consolidated balance sheets.

From time to time, we have reclassified certain securities from available for sale to held to maturity. The net unamortized, unrealized gain remaining on transferred securities included in accumulated other comprehensive income in the accompanying balance sheet totaled \$1.3 million (\$1.0 million, net of tax) at September 30, 2023 and \$1.8 million (\$1.4 million, net of tax) at December 31, 2022. This amount will be amortized out of accumulated other comprehensive income over the remaining life of the underlying securities as an adjustment of the yield on those securities.

The following table summarizes Moody's and/or Standard & Poor's bond ratings for our portfolio of held-to-maturity securities issued by States and political subdivisions and other securities as of September 30, 2023 and December 31, 2022:

	States and Political Subdivisions					Other Securities
	Not Guaranteed or Pre-Refunded	Guaranteed by the Texas PSF	Guaranteed by Third Party	Pre-Refunded	Total	
September 30, 2023						
Aaa/AAA	\$ 301,822	\$ 1,542,919	\$ 13,653	\$ 1,091	\$ 1,859,485	\$ —
Aa/AA	503,190	—	6,103	—	509,293	—
Not rated	—	—	—	—	—	1,500
Total	<u>\$ 805,012</u>	<u>\$ 1,542,919</u>	<u>\$ 19,756</u>	<u>\$ 1,091</u>	<u>\$ 2,368,778</u>	<u>\$ 1,500</u>
December 31, 2022						
Aaa/AAA	\$ 273,201	\$ 1,422,442	\$ —	\$ 121,961	\$ 1,817,604	\$ —
Aa/AA	294,015	—	—	—	294,015	—
Not rated	—	—	—	—	—	1,500
Total	<u>\$ 567,216</u>	<u>\$ 1,422,442</u>	<u>\$ —</u>	<u>\$ 121,961</u>	<u>\$ 2,111,619</u>	<u>\$ 1,500</u>

The following table details activity in the allowance for credit losses on held-to-maturity securities during the three and nine months ended September 30, 2023 and 2022.

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
Beginning balance	\$ 267	\$ 158	\$ 158	\$ 158
Credit loss expense (benefit)	43	—	152	—
Ending balance	\$ 310	\$ 158	\$ 310	\$ 158

Securities - Available for Sale. A summary of the amortized cost, fair value and allowance for credit losses related to securities available for sale as of September 30, 2023 and December 31, 2022 is presented below.

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Allowance for Credit Losses	Estimated Fair Value
September 30, 2023					
U.S. Treasury	\$ 5,459,758	\$ —	\$ 416,606	\$ —	\$ 5,043,152
Residential mortgage-backed securities	7,589,404	140	1,282,910	—	6,306,634
States and political subdivisions	5,237,185	—	512,552	—	4,724,633
Other	42,670	—	—	—	42,670
Total	\$ 18,329,017	\$ 140	\$ 2,212,068	\$ —	\$ 16,117,089
December 31, 2022					
U.S. Treasury	\$ 5,450,546	\$ —	\$ 398,959	\$ —	\$ 5,051,587
Residential mortgage-backed securities	7,316,824	8,050	948,638	—	6,376,236
States and political subdivisions	7,098,635	9,108	334,388	—	6,773,355
Other	42,427	—	—	—	42,427
Total	\$ 19,908,432	\$ 17,158	\$ 1,681,985	\$ —	\$ 18,243,605

All mortgage-backed securities included in the above table were issued by U.S. government agencies and corporations. At September 30, 2023, all of the securities in our available for sale municipal bond portfolio were issued by the State of Texas or political subdivisions or agencies within the State of Texas, of which approximately 73.3% are either guaranteed by the Texas Permanent School Fund (“PSF”) or have been pre-refunded. Securities with limited marketability, such as stock in the Federal Reserve Bank and the Federal Home Loan Bank, are carried at cost and are reported as other available for sale securities in the table above. The carrying value of available-for-sale securities pledged to secure public funds, trust deposits, repurchase agreements and for other purposes, as required or permitted by law was \$4.8 billion and \$8.0 billion at September 30, 2023 and December 31, 2022, respectively. Accrued interest receivable on available-for-sale securities totaled \$82.4 million and \$140.6 million at September 30, 2023 and December 31, 2022, respectively, and is included in accrued interest receivable and other assets in the accompanying consolidated balance sheets.

The table below summarizes, as of September 30, 2023, securities available for sale in an unrealized loss position for which an allowance for credit losses has not been recorded, aggregated by type of security and length of time in a continuous unrealized loss position.

	Less than 12 Months		More than 12 Months		Total	
	Estimated Fair Value	Unrealized Losses	Estimated Fair Value	Unrealized Losses	Estimated Fair Value	Unrealized Losses
U.S. Treasury	\$ —	\$ —	\$ 5,043,152	\$ 416,606	\$ 5,043,152	\$ 416,606
Residential mortgage-backed securities	1,486,570	67,981	4,806,198	1,214,929	6,292,768	1,282,910
States and political subdivisions	2,247,673	79,479	2,476,343	433,073	4,724,016	512,552
Total	\$ 3,734,243	\$ 147,460	\$ 12,325,693	\$ 2,064,608	\$ 16,059,936	\$ 2,212,068

As of September 30, 2023, no allowance for credit losses has been recognized on available for sale securities in an unrealized loss position as management does not believe any of the securities are impaired due to reasons of credit quality. This is based upon our analysis of the underlying risk characteristics, including credit ratings, and other qualitative factors related to our available for sale securities and in consideration of our historical credit loss experience and internal forecasts. The issuers of these securities continue to make timely principal and interest payments under the contractual terms of the securities. Furthermore, management does not have the intent to sell any of the securities classified as available for sale in the table above and believes that it is more likely than not that we will not have to sell any such securities before a recovery of cost. The

unrealized losses are due to increases in market interest rates over the yields available at the time the underlying securities were purchased. The fair value is expected to recover as the securities approach their maturity date or repricing date or if market yields for such investments decline.

Contractual Maturities. The following table summarizes the maturity distribution schedule of securities held to maturity and securities available for sale as of September 30, 2023. Mortgage-backed securities are included in maturity categories based on their stated maturity date. Expected maturities may differ from contractual maturities because issuers may have the right to call or prepay obligations. Other securities classified as available for sale include stock in the Federal Reserve Bank and the Federal Home Loan Bank, which have no maturity date. These securities have been included in the total column only.

	Within 1 Year	1 - 5 Years	5 - 10 Years	After 10 Years	Total
Held To Maturity					
<i>Amortized Cost</i>					
Residential mortgage-backed securities	\$ —	\$ —	\$ 513,264	\$ 744,891	\$ 1,258,155
States and political subdivisions	7,867	12,052	52,210	2,296,649	2,368,778
Other	—	1,500	—	—	1,500
Total	<u>\$ 7,867</u>	<u>\$ 13,552</u>	<u>\$ 565,474</u>	<u>\$ 3,041,540</u>	<u>\$ 3,628,433</u>
<i>Estimated Fair Value</i>					
Residential mortgage-backed securities	\$ —	\$ —	\$ 439,829	\$ 705,184	\$ 1,145,013
States and political subdivisions	7,863	11,880	47,029	2,018,469	2,085,241
Other	—	1,437	—	—	1,437
Total	<u>\$ 7,863</u>	<u>\$ 13,317</u>	<u>\$ 486,858</u>	<u>\$ 2,723,653</u>	<u>\$ 3,231,691</u>
Available For Sale					
<i>Amortized Cost</i>					
U. S. Treasury	\$ 1,285,709	\$ 2,794,385	\$ 1,187,343	\$ 192,321	\$ 5,459,758
Residential mortgage-backed securities	772	3,593	15,131	7,569,908	7,589,404
States and political subdivisions	249,063	188,612	861,578	3,937,932	5,237,185
Other	—	—	—	—	42,670
Total	<u>\$ 1,535,544</u>	<u>\$ 2,986,590</u>	<u>\$ 2,064,052</u>	<u>\$ 11,700,161</u>	<u>\$ 18,329,017</u>
<i>Estimated Fair Value</i>					
U. S. Treasury	\$ 1,269,227	\$ 2,633,956	\$ 1,011,055	\$ 128,914	\$ 5,043,152
Residential mortgage-backed securities	739	3,486	14,979	6,287,430	6,306,634
States and political subdivisions	247,660	184,085	802,922	3,489,966	4,724,633
Other	—	—	—	—	42,670
Total	<u>\$ 1,517,626</u>	<u>\$ 2,821,527</u>	<u>\$ 1,828,956</u>	<u>\$ 9,906,310</u>	<u>\$ 16,117,089</u>

Sales of Securities. Sales of available for sale securities were as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
Proceeds from sales	\$ 360,712	\$ —	\$ 1,904,067	\$ —
Gross realized gains	341	—	5,758	—
Gross realized losses	(329)	—	(5,692)	—
Tax (expense) benefit of securities gains/losses	(3)	—	(14)	—

Premiums and Discounts. Premium amortization and discount accretion included in interest income on securities was as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
Premium amortization	\$ (19,367)	\$ (27,165)	\$ (66,534)	\$ (84,278)
Discount accretion	5,672	4,062	15,920	7,950
Net (premium amortization) discount accretion	<u>\$ (13,695)</u>	<u>\$ (23,103)</u>	<u>\$ (50,614)</u>	<u>\$ (76,328)</u>

Trading Account Securities. Trading account securities, at estimated fair value, were as follows:

	September 30, 2023	December 31, 2022
U.S. Treasury	\$ 29,065	\$ 25,879
States and political subdivisions	276	2,166
Total	<u>\$ 29,341</u>	<u>\$ 28,045</u>

Net gains and losses on trading account securities were as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
Net gain on sales transactions	\$ 1,093	\$ 1,110	\$ 2,964	\$ 2,462
Net mark-to-market gains (losses)	(25)	9	(52)	(235)
Net gain (loss) on trading account securities	<u>\$ 1,068</u>	<u>\$ 1,119</u>	<u>\$ 2,912</u>	<u>\$ 2,227</u>

Note 3 - Loans

Loans were as follows:

	September 30, 2023	December 31, 2022
Commercial and industrial	\$ 5,836,877	\$ 5,674,798
Energy:		
Production	743,746	696,570
Service	191,880	133,542
Other	71,233	95,617
Total energy	1,006,859	925,729
Paycheck Protection Program	17,945	34,852
Commercial real estate:		
Commercial mortgages	6,660,367	6,168,910
Construction	1,544,666	1,477,247
Land	533,418	537,168
Total commercial real estate	8,738,451	8,183,325
Consumer real estate:		
Home equity lines of credit	753,020	691,841
Home equity loans	662,827	449,507
Home improvement loans	733,120	577,377
Other	190,396	124,814
Total consumer real estate	2,339,363	1,843,539
Total real estate	11,077,814	10,026,864
Consumer and other	459,764	492,726
Total loans	<u>\$ 18,399,259</u>	<u>\$ 17,154,969</u>

Concentrations of Credit. Most of our lending activity occurs within the State of Texas, including the four largest metropolitan areas of Austin, Dallas/Ft. Worth, Houston, and San Antonio, as well as other markets. The majority of our loan portfolio consists of commercial and industrial and commercial real estate loans. As of September 30, 2023, there were no concentrations of loans related to any single industry in excess of 10% of total loans. At that date, the largest industry concentrations were related to the automobile dealerships industry, which totaled 5.6% of total loans and the energy industry, which totaled 5.5% of total loans. Unfunded commitments to extend credit and standby letters of credit issued to customers in the automobile dealership industry totaled \$459.5 million and \$20.2 million, respectively, as of September 30, 2023, while unfunded commitments to extend credit and standby letters of credit issued to customers in the energy industry totaled \$1.0 billion and \$87.2 million, respectively, as of September 30, 2023.

Foreign Loans. We have U.S. dollar denominated loans and commitments to borrowers in Mexico. The outstanding balance of these loans and the unfunded amounts available under these commitments were not significant at September 30, 2023 or December 31, 2022.

Related Party Loans. In the ordinary course of business, we have granted loans to certain directors, executive officers, and their affiliates (collectively referred to as “related parties”). Such loans totaled \$396.7 million at September 30, 2023 and \$391.3 million at December 31, 2022.

Accrued Interest Receivable. Accrued interest receivable on loans totaled \$83.9 million and \$68.7 million at September 30, 2023 and December 31, 2022, respectively, and is included in accrued interest receivable and other assets in the accompanying consolidated balance sheets.

Non-Accrual and Past Due Loans. Loans are considered past due if the required principal and interest payments have not been received as of the date such payments were due. Loans are placed on non-accrual status when, in management’s opinion, the borrower may be unable to meet payment obligations as they become due, as well as when required by regulatory provisions.

Non-accrual loans, segregated by class of loans, were as follows:

	September 30, 2023		December 31, 2022	
	Total Non-Accrual	Non-Accrual with No Credit Loss Allowance	Total Non-Accrual	Non-Accrual with No Credit Loss Allowance
Commercial and industrial	\$ 27,326	\$ 3,693	\$ 18,130	\$ 8,514
Energy	14,200	9,698	15,224	7,139
Commercial real estate:				
Buildings, land, and other	23,112	5,100	3,552	1,991
Construction	—	—	—	—
Consumer real estate	2,537	202	927	927
Consumer and other	—	—	—	—
Total	<u>\$ 67,175</u>	<u>\$ 18,693</u>	<u>\$ 37,833</u>	<u>\$ 18,571</u>

The following table presents non-accrual loans as of September 30, 2023 by class and year of origination.

	2023	2022	2021	2020	2019	Prior	Revolving Loans	Revolving Loans Converted to Term	Total
Commercial and industrial	\$ —	\$ 359	\$ 84	\$ 747	\$ 2,812	\$ 1,068	\$ 21,924	\$ 332	\$ 27,326
Energy	8,148	—	—	56	1,348	—	4,502	146	14,200
Commercial real estate:									
Buildings, land, and other	18,438	105	296	—	1,463	2,810	—	—	23,112
Construction	—	—	—	—	—	—	—	—	—
Consumer real estate	—	—	—	38	2,335	93	—	71	2,537
Consumer and other	—	—	—	—	—	—	—	—	—
Total	<u>\$ 26,586</u>	<u>\$ 464</u>	<u>\$ 380</u>	<u>\$ 841</u>	<u>\$ 7,958</u>	<u>\$ 3,971</u>	<u>\$ 26,426</u>	<u>\$ 549</u>	<u>\$ 67,175</u>

In the table above, energy and commercial real estate loans reported as 2023 originations as of September 30, 2023 were first originated in years prior to 2023 but were renewed in the current year. Had non-accrual loans performed in accordance with their original contract terms, we would have recognized additional interest income, net of tax, of approximately \$1.2 million and \$2.7 million for the three and nine months ended September 30, 2023, respectively, and approximately \$372 thousand and \$1.2 million for the three and nine months ended September 30, 2022, respectively.

An age analysis of past due loans (including both accruing and non-accruing loans), segregated by class of loans, as of September 30, 2023 was as follows:

	Loans 30-89 Days Past Due	Loans 90 or More Days Past Due	Total Past Due Loans	Current Loans	Total Loans	Accruing Loans 90 or More Days Past Due
Commercial and industrial	\$ 29,967	\$ 9,682	\$ 39,649	\$ 5,797,228	\$ 5,836,877	\$ 5,404
Energy	1,684	6,052	7,736	999,123	1,006,859	—
Paycheck Protection Program	2,000	1,954	3,954	13,991	17,945	1,954
Commercial real estate:						
Buildings, land, and other	11,364	1,452	12,816	7,180,969	7,193,785	1,056
Construction	8,523	—	8,523	1,536,143	1,544,666	—
Consumer real estate	12,106	6,999	19,105	2,320,258	2,339,363	6,801
Consumer and other	5,041	523	5,564	454,200	459,764	523
Total	<u>\$ 70,685</u>	<u>\$ 26,662</u>	<u>\$ 97,347</u>	<u>\$ 18,301,912</u>	<u>\$ 18,399,259</u>	<u>\$ 15,738</u>

Modifications to Borrowers Experiencing Financial Difficulty. From time to time, we may modify certain loans to borrowers who are experiencing financial difficulty. In some cases, these modifications may result in new loans. Loan modifications to borrowers experiencing financial difficulty may be in the form of a principal forgiveness, an interest rate reduction, an other-than-insignificant payment delay, or a term extension or a combination thereof, among other things. The period-end balance of loan modifications, segregated by type of modification, to borrowers experiencing financial difficulty during the nine months ended September 30, 2023 and September 30, 2022 are set forth in the table below, regardless of whether such modifications resulted in a new loan. There were no commitments to lend additional funds to these borrowers at September 30, 2023.

	Payment Delay	Percent of Total Class of Loans	Combination: Payment Delay and Term Extension	Percent of Total Class of Loans	Combination: Interest Rate Reduction and Term Extension	Percent of Total Class of Loans
September 30, 2023						
Commercial and industrial	\$ —	— %	\$ 15,912	0.3 %	\$ —	— %
Commercial real estate:						
Buildings, land, and other	—	—	19,785	0.3	2,100	—
	<u>\$ —</u>	<u>—</u>	<u>\$ 35,697</u>	<u>0.2</u>	<u>\$ 2,100</u>	<u>—</u>
September 30, 2022						
Commercial real estate:						
Buildings, land, and other	\$ 1,083	—	\$ —	—	\$ —	—
	<u>\$ 1,083</u>	<u>—</u>	<u>\$ —</u>	<u>—</u>	<u>\$ —</u>	<u>—</u>

During the third quarter of 2023, we modified the interest rate on one loan from a variable rate of prime plus a spread of 1.75% (10.25% as of the modification date) to a fixed rate of 6.74% in addition to extending the term of the loan. The financial effects of the other loan modifications made to borrowers experiencing financial difficulty during the nine months ended September 30, 2023 were not significant. The loan modifications reported in the table above did not significantly impact our determination of the allowance for credit losses on loans during the nine months ended September 30, 2023.

Information as of or for the nine months ended September 30, 2023 and September 30, 2022 related to loans modified (by type of modification) in the preceding twelve months, respectively, whereby the borrower was experiencing financial difficulty at the time of modification is set forth in the following table.

	September 30, 2023		September 30, 2022	
	Combination: Payment Delay and Term Extension	Combination: Interest Rate Reduction and Term Extension	Payment Delay	Combination: Payment Delay and Term Extension
Past due in excess of 90 days or on non-accrual status at period-end:				
Commercial real estate:				
Buildings, land, and other	\$ —	\$ 2,100	\$ 1,083	\$ —
	<u>\$ —</u>	<u>\$ 2,100</u>	<u>\$ 1,083</u>	<u>\$ —</u>
Charge-offs during the period:				
Commercial real estate:				
Buildings, land, and other	\$ —	\$ —	\$ 371	\$ 352
	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 371</u>	<u>\$ 352</u>
Proceeds from sales:				
Commercial real estate:				
Buildings, land, and other	\$ —	\$ —	\$ —	\$ 1,070
	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 1,070</u>

Credit Quality Indicators. As part of the on-going monitoring of the credit quality of our loan portfolio, management tracks certain credit quality indicators including trends related to (i) the weighted-average risk grade of commercial loans, (ii) the level of classified commercial loans, (iii) the delinquency status of consumer loans, (iv) non-performing loans (see details above) and (v) the general economic conditions in the State of Texas.

We utilize a risk grading matrix to assign a risk grade to each of our commercial loans. Loans are graded on a scale of 1 to 14. A description of the general characteristics of the 14 risk grades is set forth in our 2022 Form 10-K. We monitor portfolio credit quality by the weighted-average risk grade of each class of commercial loan. Individual relationship managers, under the oversight of credit administration, review updated financial information for all pass grade loans to reassess the risk grade on at least an annual basis. When a loan has a risk grade of 9, it is still considered a pass grade loan; however, it is considered to be on management's "watch list," where a significant risk-modifying action is anticipated in the near term. When a loan has a risk grade of 10 or higher, a special assets officer monitors the loan on an on-going basis.

The following table presents weighted-average risk grades for all commercial loans, by class and year of origination/renewal, as of September 30, 2023. Paycheck Protection Program ("PPP") loans are excluded as such loans are fully guaranteed by the Small Business Administration ("SBA").

	2023	2022	2021	2020	2019	Prior	Revolving Loans	Revolving Loans Converted to Term	Total	W/A Risk Grade
Commercial and industrial										
Risk grades 1-8	\$ 1,360,645	\$ 860,771	\$ 495,449	\$ 383,880	\$ 182,663	\$ 221,704	\$ 2,034,460	\$ 42,098	\$ 5,581,670	6.29
Risk grade 9	16,491	9,544	5,764	2,837	1,492	9,823	49,123	5,016	100,090	9.00
Risk grade 10	9,184	904	912	312	4,121	619	34,027	1,021	51,100	10.00
Risk grade 11	5,232	5,422	26,626	8,652	2,619	1,389	13,336	13,415	76,691	11.00
Risk grade 12	—	359	84	641	2,663	1,068	16,817	332	21,964	12.00
Risk grade 13	—	—	—	106	149	—	5,107	—	5,362	13.00
	<u>\$ 1,391,552</u>	<u>\$ 877,000</u>	<u>\$ 528,835</u>	<u>\$ 396,428</u>	<u>\$ 193,707</u>	<u>\$ 234,603</u>	<u>\$ 2,152,870</u>	<u>\$ 61,882</u>	<u>\$ 5,836,877</u>	6.46
W/A risk grade	6.24	6.79	7.22	5.85	6.15	6.10	6.43	7.86	6.46	

	2023	2022	2021	2020	2019	Prior	Revolving Loans	Revolving Loans Converted to Term	Total	W/A Risk Grade
Energy										
Risk grades 1-8	\$ 288,729	\$ 65,086	\$ 78,601	\$ 3,959	\$ 2,057	\$ 4,164	\$ 453,243	\$ 7,871	\$ 903,710	5.67
Risk grade 9	35,025	7,492	1,184	—	475	—	4,355	18	48,549	9.00
Risk grade 10	—	—	38	—	326	710	34,925	—	35,999	10.00
Risk grade 11	—	—	88	147	3,031	—	—	1,135	4,401	11.00
Risk grade 12	8,148	—	—	56	1,348	—	1,802	146	11,500	12.00
Risk grade 13	—	—	—	—	—	—	2,700	—	2,700	13.00
	<u>\$ 331,902</u>	<u>\$ 72,578</u>	<u>\$ 79,911</u>	<u>\$ 4,162</u>	<u>\$ 7,237</u>	<u>\$ 4,874</u>	<u>\$ 497,025</u>	<u>\$ 9,170</u>	<u>\$ 1,006,859</u>	6.10
W/A risk grade	6.35	6.86	6.05	6.92	9.94	7.19	5.73	7.90	6.10	
Commercial real estate:										
Buildings, land, other										
Risk grades 1-8	\$ 1,185,417	\$ 1,718,438	\$ 1,303,804	\$ 792,410	\$ 547,600	\$ 924,632	\$ 223,084	\$ 100,763	\$ 6,796,148	7.01
Risk grade 9	8,476	22,301	53,874	38,898	16,916	26,598	2,175	541	169,779	9.00
Risk grade 10	217	29,842	7,268	29,238	775	3,219	—	2,599	73,158	10.00
Risk grade 11	4,723	5,985	49,075	10,716	1,697	55,729	2,993	670	131,588	11.00
Risk grade 12	17,288	105	—	—	1,463	2,810	—	—	21,666	12.00
Risk grade 13	1,150	—	296	—	—	—	—	—	1,446	13.00
	<u>\$ 1,217,271</u>	<u>\$ 1,776,671</u>	<u>\$ 1,414,317</u>	<u>\$ 871,262</u>	<u>\$ 568,451</u>	<u>\$ 1,012,988</u>	<u>\$ 228,252</u>	<u>\$ 104,573</u>	<u>\$ 7,193,785</u>	7.17
W/A risk grade	7.21	7.13	7.34	7.22	6.83	7.18	7.29	6.49	7.17	
Construction										
Risk grades 1-8	\$ 390,535	\$ 526,048	\$ 331,652	\$ 47,871	\$ 305	\$ 1,638	\$ 138,353	\$ —	\$ 1,436,402	7.25
Risk grade 9	—	16,259	29,569	—	—	—	4,773	—	50,601	9.00
Risk grade 10	23,446	—	5,353	—	—	—	7,311	—	36,110	10.00
Risk grade 11	5,838	13,104	2,611	—	—	—	—	—	21,553	11.00
Risk grade 12	—	—	—	—	—	—	—	—	—	12.00
Risk grade 13	—	—	—	—	—	—	—	—	—	13.00
	<u>\$ 419,819</u>	<u>\$ 555,411</u>	<u>\$ 369,185</u>	<u>\$ 47,871</u>	<u>\$ 305</u>	<u>\$ 1,638</u>	<u>\$ 150,437</u>	<u>\$ —</u>	<u>\$ 1,544,666</u>	7.43
W/A risk grade	7.59	7.30	7.84	4.39	7.23	6.78	7.42	—	7.43	
Total commercial real estate	<u>\$ 1,637,090</u>	<u>\$ 2,332,082</u>	<u>\$ 1,783,502</u>	<u>\$ 919,133</u>	<u>\$ 568,756</u>	<u>\$ 1,014,626</u>	<u>\$ 378,689</u>	<u>\$ 104,573</u>	<u>\$ 8,738,451</u>	7.22
W/A risk grade	7.30	7.17	7.44	7.07	6.83	7.18	7.35	6.49	7.22	

In the table above, certain loans are reported as 2023 originations and have risk grades of 11 or higher. These loans were, for the most part, first originated in various years prior to 2023 but were renewed in the current year.

The following tables present weighted average risk grades for all commercial loans by class as of December 31, 2022. Refer to our 2022 Form 10-K for details of these loans by year of origination/renewal.

	Commercial and Industrial		Energy		Commercial Real Estate - Buildings, Land and Other		Commercial Real Estate - Construction		Total Commercial Real Estate	
	W/A Risk Grade	Loans	W/A Risk Grade	Loans	W/A Risk Grade	Loans	W/A Risk Grade	Loans	W/A Risk Grade	Loans
Risk grades 1-8	6.24	\$ 5,435,917	5.44	\$ 887,182	6.94	\$ 6,340,028	7.04	\$ 1,430,012	6.96	\$ 7,770,040
Risk grade 9	9.00	146,192	9.00	11,112	9.00	189,928	9.00	34,952	9.00	224,880
Risk grade 10	10.00	37,596	10.00	642	10.00	91,020	10.00	931	10.00	91,951
Risk grade 11	11.00	36,963	11.00	11,569	11.00	81,550	11.00	11,352	11.00	92,902
Risk grade 12	12.00	12,521	12.00	10,840	12.00	2,957	12.00	—	12.00	2,957
Risk grade 13	13.00	5,609	13.00	4,384	13.00	595	13.00	—	13.00	595
Total	6.39	<u>\$ 5,674,798</u>	5.67	<u>\$ 925,729</u>	7.09	<u>\$ 6,706,078</u>	7.12	<u>\$ 1,477,247</u>	7.10	<u>\$ 8,183,325</u>

Information about the payment status of consumer loans, segregated by portfolio segment and year of origination, as of September 30, 2023 was as follows:

	2023	2022	2021	2020	2019	Prior	Revolving Loans	Revolving Loans Converted to Term	Total
Consumer real estate:									
Past due 30-89 days	\$ 222	\$ 1,201	\$ 1,034	\$ 535	\$ 283	\$ 2,329	\$ 6,240	\$ 262	\$ 12,106
Past due 90 or more days	—	534	650	38	22	1,186	1,509	3,060	6,999
Total past due	222	1,735	1,684	573	305	3,515	7,749	3,322	19,105
Current loans	470,908	439,461	288,751	176,252	61,336	141,551	734,358	7,641	2,320,258
Total	\$ 471,130	\$ 441,196	\$ 290,435	\$ 176,825	\$ 61,641	\$ 145,066	\$ 742,107	\$ 10,963	\$ 2,339,363
Consumer and other:									
Past due 30-89 days	\$ 2,403	\$ 377	\$ 193	\$ 47	\$ 35	\$ 49	\$ 1,818	\$ 119	\$ 5,041
Past due 90 or more days	95	62	—	—	—	11	350	5	523
Total past due	2,498	439	193	47	35	—	2,168	124	5,564
Current loans	59,223	32,960	9,543	4,076	1,641	1,645	323,629	21,483	454,200
Total	\$ 61,721	\$ 33,399	\$ 9,736	\$ 4,123	\$ 1,676	\$ 1,645	\$ 325,797	\$ 21,607	\$ 459,764

Revolving loans that converted to term during the three and nine months ended September 30, 2023 and 2022 were as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
Commercial and industrial	\$ 13,144	\$ 2,368	\$ 18,246	\$ 22,579
Energy	3,451	1,582	4,050	1,806
Commercial real estate:				
Buildings, land and other	—	—	5,635	10,759
Construction	—	—	—	4,414
Consumer real estate	709	700	1,630	2,223
Consumer and other	1,699	1,963	5,151	7,691
Total	\$ 19,003	\$ 6,613	\$ 34,712	\$ 49,472

In assessing the general economic conditions in the State of Texas, management monitors and tracks the Texas Leading Index (“TLI”), which is produced by the Federal Reserve Bank of Dallas. The TLI, the components of which are more fully described in our 2022 Form 10-K, totaled 129.0 at September 30, 2023 and 130.4 at December 31, 2022. A lower TLI value implies less favorable economic conditions.

Allowance For Credit Losses - Loans. The allowance for credit losses on loans is a contra-asset valuation account, calculated in accordance with ASC 326, that is deducted from the amortized cost basis of loans to present the net amount expected to be collected. The amount of the allowance represents management's best estimate of current expected credit losses on loans considering available information, from internal and external sources, relevant to assessing collectibility over the loans' contractual terms, adjusted for expected prepayments when appropriate. Credit loss expense related to loans reflects the totality of actions taken on all loans for a particular period including any necessary increases or decreases in the allowance related to changes in credit loss expectations associated with specific loans or pools of loans. Portions of the allowance may be allocated for specific credits; however, the entire allowance is available for any credit that, in management's judgment, should be charged off. While management utilizes its best judgment and information available, the ultimate appropriateness of the allowance is dependent upon a variety of factors beyond our control, including the performance of our loan portfolio, the economy, changes in interest rates and the view of the regulatory authorities toward loan classifications. Our allowance methodology is more fully described in our 2022 Form 10-K.

During the first quarter of 2023, we recalibrated and updated all of our commercial loan models, with the exception of the models related to commercial real estate - non-owner-occupied loans, as well as our consumer real estate loan models. While the fundamental modeling methodologies remain unchanged, the updates included (i) separating the energy loan pool from the commercial and industrial pool as a result of differences in loss characteristics observed in recent history and (ii) changing the modeling approach related to loan renewals whereby each renewal is treated as a separate loan which impacted loan life assumptions. For modeling purposes, our loan pools now include (i) commercial and industrial non-revolving, (ii) commercial and industrial revolving, (iii) energy, (iv) commercial real estate - owner occupied, (v) commercial real estate - non-owner occupied, (vi) commercial real estate - construction/land development, (vii) consumer real estate and (viii) consumer and other.

The overall approximate impact of the model updates during the first quarter was a \$45.0 million decrease in modeled expected credit losses on loans though the impact of this decrease was largely offset with qualitative adjustments. The decrease in modeled expected credit losses on loans was largely driven by lower measurements for probability of default (“PD”) and loss given default (“LGD”) based on the historical data series (2008 through 2018) used for the recalibration. This period was one of relatively low losses and included higher levels of government stimulus. The lower PD and LGD measurements were also impacted by shorter loan life assumptions due to the aforementioned change in the modeling approach related to loan renewals.

The following table presents details of the allowance for credit losses on loans segregated by loan portfolio segment as of September 30, 2023 and December 31, 2022. No allowance for credit losses has been recognized for PPP loans as such loans are fully guaranteed by the SBA.

	Commercial and Industrial	Energy	Commercial Real Estate	Consumer Real Estate	Consumer and Other	Total
September 30, 2023						
Modeled expected credit losses	\$ 45,398	\$ 7,065	\$ 16,366	\$ 14,239	\$ 5,258	\$ 88,326
Q-Factor and other qualitative adjustments	23,547	7,301	108,680	498	4,073	144,099
Specific allocations	5,362	2,700	1,446	302	—	9,810
Total	<u>\$ 74,307</u>	<u>\$ 17,066</u>	<u>\$ 126,492</u>	<u>\$ 15,039</u>	<u>\$ 9,331</u>	<u>\$ 242,235</u>
December 31, 2022						
Modeled expected credit losses	\$ 61,918	\$ 8,531	\$ 27,013	\$ 7,847	\$ 4,983	\$ 110,292
Q-Factor and other qualitative adjustments	36,237	5,148	61,572	157	2,034	105,148
Specific allocations	6,082	4,383	1,716	—	—	12,181
Total	<u>\$ 104,237</u>	<u>\$ 18,062</u>	<u>\$ 90,301</u>	<u>\$ 8,004</u>	<u>\$ 7,017</u>	<u>\$ 227,621</u>

The following table details activity in the allowance for credit losses on loans by portfolio segment for the three and nine months ended September 30, 2023 and 2022. Allocation of a portion of the allowance to one category of loans does not preclude its availability to absorb losses in other categories. No allowance for credit losses has been recognized for PPP loans as such loans are fully guaranteed by the SBA.

	Commercial and Industrial	Energy	Commercial Real Estate	Consumer Real Estate	Consumer and Other	Total
Three months ended:						
September 30, 2023						
Beginning balance	\$ 75,166	\$ 14,929	\$ 120,926	\$ 13,035	\$ 9,563	\$ 233,619
Credit loss expense (benefit)	(623)	1,784	5,424	2,130	4,893	13,608
Charge-offs	(943)	—	(62)	(170)	(8,189)	(9,364)
Recoveries	707	353	204	44	3,064	4,372
Net (charge-offs) recoveries	(236)	353	142	(126)	(5,125)	(4,992)
Ending balance	<u>\$ 74,307</u>	<u>\$ 17,066</u>	<u>\$ 126,492</u>	<u>\$ 15,039</u>	<u>\$ 9,331</u>	<u>\$ 242,235</u>
September 30, 2022						
Beginning balance	\$ 87,270	\$ 16,267	\$ 117,106	\$ 6,854	\$ 12,135	\$ 239,632
Credit loss expense (benefit)	10,844	2,491	(16,522)	940	(216)	(2,463)
Charge-offs	(572)	—	—	(68)	(6,549)	(7,189)
Recoveries	1,288	93	23	309	2,622	4,335
Net (charge-offs) recoveries	716	93	23	241	(3,927)	(2,854)
Ending balance	<u>\$ 98,830</u>	<u>\$ 18,851</u>	<u>\$ 100,607</u>	<u>\$ 8,035</u>	<u>\$ 7,992</u>	<u>\$ 234,315</u>

	Commercial and Industrial	Energy	Commercial Real Estate	Consumer Real Estate	Consumer and Other	Total
Nine months ended:						
September 30, 2023						
Beginning balance	\$ 104,237	\$ 18,062	\$ 90,301	\$ 8,004	\$ 7,017	\$ 227,621
Credit loss expense (benefit)	(18,903)	(1,683)	35,918	7,235	15,649	38,216
Charge-offs	(14,259)	(518)	(62)	(1,500)	(22,147)	(38,486)
Recoveries	3,232	1,205	335	1,300	8,812	14,884
Net (charge-offs) recoveries	(11,027)	687	273	(200)	(13,335)	(23,602)
Ending balance	\$ 74,307	\$ 17,066	\$ 126,492	\$ 15,039	\$ 9,331	\$ 242,235
September 30, 2022						
Beginning balance	\$ 72,091	\$ 17,217	\$ 144,936	\$ 6,585	\$ 7,837	\$ 248,666
Credit loss expense (benefit)	29,347	874	(44,363)	1,497	10,250	(2,395)
Charge-offs	(5,918)	(371)	(702)	(430)	(17,642)	(25,063)
Recoveries	3,310	1,131	736	383	7,547	13,107
Net (charge-offs) recoveries	(2,608)	760	34	(47)	(10,095)	(11,956)
Ending balance	\$ 98,830	\$ 18,851	\$ 100,607	\$ 8,035	\$ 7,992	\$ 234,315

The following table presents year-to-date gross charge-offs by year of origination as of September 30, 2023.

	2023	2022	2021	2020	2019	Prior	Revolving Loans	Revolving Loans Converted to Term	Total
Commercial and industrial	\$ 124	\$ 952	\$ 178	\$ 54	\$ 25	\$ 29	\$ 7,594	\$ 5,303	\$ 14,259
Energy	—	—	—	—	—	—	—	518	518
Commercial real estate:									
Buildings, land and other	—	—	—	—	—	62	—	—	62
Construction	—	—	—	—	—	—	—	—	—
Consumer real estate	—	—	280	—	—	130	1,090	—	1,500
Consumer and other	15,543	4,389	60	12	1	23	1,692	427	22,147
Total	\$ 15,667	\$ 5,341	\$ 518	\$ 66	\$ 26	\$ 244	\$ 10,376	\$ 6,248	\$ 38,486

In the table above, \$15.5 million of the consumer and other loan charge-offs reported as 2023 originations and \$4.2 million of the total reported as 2022 originations were related to deposit overdrafts.

The following table presents loans that were evaluated for expected credit losses on an individual basis and the related specific allocations, by loan portfolio segment, as of September 30, 2023 and December 31, 2022.

	September 30, 2023		December 31, 2022	
	Loan Balance	Specific Allocations	Loan Balance	Specific Allocations
Commercial and industrial	\$ 26,455	\$ 5,362	\$ 18,980	\$ 6,082
Energy	14,054	2,700	15,058	4,383
Paycheck Protection Program	—	—	—	—
Commercial real estate:				
Buildings, land and other	22,318	1,446	17,711	1,716
Construction	—	—	—	—
Consumer real estate	2,335	302	827	—
Consumer and other	—	—	—	—
Total	\$ 65,162	\$ 9,810	\$ 52,576	\$ 12,181

Note 4 - Deposits

Deposits were as follows:

	September 30, 2023	December 31, 2022
Non-interest-bearing demand deposits	\$ 14,631,456	\$ 17,598,234
Interest-bearing deposits:		
Savings and interest checking	10,149,156	12,333,675
Money market accounts	11,140,875	12,227,247
Time accounts	5,070,748	1,795,040
Total interest-bearing deposits	26,360,779	26,355,962
Total deposits	\$ 40,992,235	\$ 43,954,196

The table below presents additional information about our deposits. Public funds in excess of deposit insurance limits are included in the totals for deposits not covered by insurance; however, such deposits are generally fully collateralized by securities.

	September 30, 2023	December 31, 2022
Deposits from foreign sources (primarily Mexico)	\$ 1,079,651	\$ 1,048,943
Non-interest-bearing public funds deposits	403,963	788,040
Interest-bearing public funds deposits	595,477	758,761
Total deposits not covered by deposit insurance	21,403,451	24,168,709
Time deposits not covered by deposit insurance	2,122,421	477,489

Note 5 - Off-Balance-Sheet Arrangements, Commitments, Guarantees and Contingencies

Financial Instruments with Off-Balance-Sheet Risk. In the normal course of business, we enter into various transactions, which, in accordance with generally accepted accounting principles are not included in our consolidated balance sheets. We enter into these transactions to meet the financing needs of our customers. As more fully discussed in our 2022 Form 10-K, these transactions include commitments to extend credit and standby letters of credit, which involve, to varying degrees, elements of credit risk and interest rate risk in excess of the amounts recognized in the consolidated balance sheets. We minimize our exposure to loss under these commitments by subjecting them to credit approval and monitoring procedures.

Financial instruments with off-balance-sheet risk were as follows:

	September 30, 2023	December 31, 2022
Commitments to extend credit	\$ 12,053,260	\$ 12,137,957
Standby letters of credit	370,718	383,851
Deferred standby letter of credit fees	1,972	2,236

Allowance For Credit Losses - Off-Balance-Sheet Credit Exposures. The allowance for credit losses on off-balance-sheet credit exposures is a liability account, calculated in accordance with ASC 326, representing expected credit losses over the contractual period for which we are exposed to credit risk resulting from a contractual obligation to extend credit. No allowance is recognized if we have the unconditional right to cancel the obligation. Off-balance-sheet credit exposures primarily consist of amounts available under outstanding lines of credit and letters of credit detailed in the table above. The amount of the allowance represents management's best estimate of expected credit losses on commitments expected to be funded over the contractual life of the commitment. Our allowance methodology is more fully described in our 2022 Form 10-K. This methodology was also impacted by the model updates during the first quarter of 2023 as described in Note 3 - Loans. The overall approximate impact of the model updates was a \$19.0 million decrease in modeled expected credit losses for off-balance-sheet credit exposures, though the impact of this decrease was largely offset with qualitative adjustments.

The following table details activity in the allowance for credit losses on off-balance-sheet credit exposures.

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
Beginning balance	\$ 52,881	\$ 50,246	\$ 58,593	\$ 50,314
Credit loss expense (benefit)	(2,466)	2,463	(8,178)	2,395
Ending balance	\$ 50,415	\$ 52,709	\$ 50,415	\$ 52,709

Lease Commitments. We lease certain office facilities and office equipment under operating leases. The components of total lease expense were as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
Amortization of lease right-of-use assets	\$ 8,220	\$ 8,389	\$ 25,732	\$ 24,703
Short-term lease expense	852	536	1,754	1,639
Non-lease components (including taxes, insurance, common maintenance, etc.)	3,269	3,092	10,312	8,860
Total	\$ 12,341	\$ 12,017	\$ 37,798	\$ 35,202

Right-of-use lease assets totaled \$281.4 million at September 30, 2023 and \$288.8 million at December 31, 2022 and are reported as a component of premises and equipment on our accompanying consolidated balance sheets. The related lease liabilities totaled \$316.9 million at September 30, 2023 and \$321.9 million at December 31, 2022 and are reported as a component of accrued interest payable and other liabilities in the accompanying consolidated balance sheets. Lease payments under operating leases that were applied to our operating lease liability totaled \$7.3 million and \$23.8 million during the three and nine months ended September 30, 2023, respectively, and \$8.2 million and \$24.6 million during the three and nine months ended September 30, 2022, respectively. There has been no significant change in our expected future minimum lease payments since December 31, 2022. See the 2022 Form 10-K for information regarding these commitments.

Litigation. We are subject to various claims and legal actions that have arisen in the course of conducting business. Management does not expect the ultimate disposition of these matters to have a material adverse impact on our financial statements.

Note 6 - Capital and Regulatory Matters

Banks and bank holding companies are subject to various regulatory capital requirements administered by state and federal banking agencies. Capital adequacy guidelines and, additionally for banks, prompt corrective action regulations, involve quantitative measures of assets, liabilities, and certain off-balance-sheet items calculated under regulatory accounting practices. Capital amounts and classifications are also subject to qualitative judgments by regulators about components, risk weighting and other factors.

Cullen/Frost's and Frost Bank's Common Equity Tier 1 capital ("CET1") includes common stock and related paid-in capital, net of treasury stock, and retained earnings. In connection with the adoption of the Basel III Capital Rules, we elected to opt-out of the requirement to include most components of accumulated other comprehensive income in CET1. We also elected to exclude the effects of credit loss accounting under CECL from CET1 for a five-year transitional period, as further discussed in our 2022 Form 10-K. This CECL transitional adjustment totaled \$30.8 million and \$46.2 million at September 30, 2023 and December 31, 2022, respectively. CET1 is reduced by goodwill and other intangible assets, net of associated deferred tax liabilities. Frost Bank's CET1 is also reduced by its equity investment in its financial subsidiary, Frost Insurance Agency ("FIA").

Tier 1 capital includes CET1 and additional Tier 1 capital. For Cullen/Frost, additional Tier 1 capital included \$145.5 million of 4.450% non-cumulative perpetual preferred stock at September 30, 2023 and December 31, 2022, the details of which are further discussed below. Frost Bank did not have any additional Tier 1 capital beyond Common Equity Tier 1 at September 30, 2023 or December 31, 2022. Total capital includes Tier 1 capital and Tier 2 capital. Tier 2 capital for both Cullen/Frost and Frost Bank includes a permissible portion of the allowances for credit losses on securities, loans, and off-balance-sheet credit exposures. Tier 2 capital for Cullen/Frost also includes the permissible portion of qualified subordinated debt (which decreases 20.0% per year during the final five years of the term of the notes) totaling \$60.0 million at September 30, 2023 and \$80.0 million at December 31, 2022 and trust preferred securities totaling \$120.0 million at both September 30, 2023 and December 31, 2022.

The following table presents actual and required capital ratios as of September 30, 2023 and December 31, 2022 for Cullen/Frost and Frost Bank under the Basel III Capital Rules. Capital levels required to be considered well-capitalized are based upon prompt corrective action regulations, as amended to reflect the changes under the Basel III Capital Rules. See the 2022 Form 10-K for a more detailed discussion of the Basel III Capital Rules.

	Actual		Minimum Capital Required Plus Capital Conservation Buffer		Required to be Considered Well- Capitalized ⁽¹⁾	
	Capital Amount	Ratio	Capital Amount	Ratio	Capital Amount	Ratio
September 30, 2023						
Common Equity Tier 1 to Risk-Weighted Assets						
Cullen/Frost	\$ 3,977,860	13.32 %	\$ 2,090,045	7.00 %	N/A	N/A
Frost Bank	4,013,794	13.46	2,087,478	7.00	\$ 1,938,372	6.50 %
Tier 1 Capital to Risk-Weighted Assets						
Cullen/Frost	4,123,312	13.81	2,537,911	8.50	1,791,467	6.00
Frost Bank	4,013,794	13.46	2,534,795	8.50	2,385,689	8.00
Total Capital to Risk-Weighted Assets						
Cullen/Frost	4,561,577	15.28	3,135,067	10.50	2,985,778	10.00
Frost Bank	4,272,059	14.33	3,131,217	10.50	2,982,112	10.00
Leverage Ratio						
Cullen/Frost	4,123,312	8.17	2,018,632	4.00	N/A	N/A
Frost Bank	4,013,794	7.96	2,018,241	4.00	2,522,801	5.00
December 31, 2022						
Common Equity Tier 1 to Risk-Weighted Assets						
Cullen/Frost	\$ 3,751,200	12.85 %	\$ 2,042,876	7.00 %	N/A	N/A
Frost Bank	3,789,056	13.00	2,040,388	7.00	\$ 1,894,646	6.50 %
Tier 1 Capital to Risk-Weighted Assets						
Cullen/Frost	3,896,652	13.35	2,480,635	8.50	1,751,036	6.00
Frost Bank	3,789,056	13.00	2,477,614	8.50	2,331,872	8.00
Total Capital to Risk-Weighted Assets						
Cullen/Frost	4,330,982	14.84	3,064,313	10.50	2,918,394	10.00
Frost Bank	4,023,386	13.80	3,060,583	10.50	2,914,841	10.00
Leverage Ratio						
Cullen/Frost	3,896,652	7.29	2,136,680	4.00	N/A	N/A
Frost Bank	3,789,056	7.09	2,136,316	4.00	2,670,395	5.00

(1) “Well-capitalized” minimum Common Equity Tier 1 to Risk-Weighted Assets and Leverage Ratio are not formally defined under applicable banking regulations for bank holding companies.

As of September 30, 2023, capital levels at Cullen/Frost and Frost Bank exceed all capital adequacy requirements under the Basel III Capital Rules. Based on the ratios presented above, capital levels as of September 30, 2023 at Cullen/Frost and Frost Bank exceed the minimum levels necessary to be considered “well-capitalized.”

Cullen/Frost and Frost Bank are subject to the regulatory capital requirements administered by the Federal Reserve Board and, for Frost Bank, the Federal Deposit Insurance Corporation (“FDIC”). Regulatory authorities can initiate certain mandatory actions if Cullen/Frost or Frost Bank fail to meet the minimum capital requirements, which could have a direct material effect on our financial statements. Management believes, as of September 30, 2023, that Cullen/Frost and Frost Bank meet all capital adequacy requirements to which they are subject.

Preferred Stock. Outstanding preferred stock includes 150,000 shares, or \$150.0 million in aggregate liquidation preference, of our 4.450% Non-Cumulative Perpetual Preferred Stock, Series B, par value \$0.01 and liquidation preference \$1,000 per share (“Series B Preferred Stock”). Each share of Series B Preferred Stock issued and outstanding is represented by 40 depositary shares, each representing a 1/40th ownership interest in a share of the Series B Preferred Stock (equivalent to a liquidation preference of \$25 per share). The Series B Preferred Stock qualifies as Tier 1 capital for the purposes of the regulatory capital calculations. The net proceeds from the issuance and sale of the Series B Preferred Stock, after deducting \$4.5 million of issuance costs including the underwriting discount and professional service fees, among other things, were approximately \$145.5 million. Refer to our 2022 Form 10-K for additional details related to our Series B Preferred Stock.

Stock Repurchase Plans. From time to time, our board of directors has authorized stock repurchase plans. In general, stock repurchase plans allow us to proactively manage our capital position and return excess capital to shareholders. Shares purchased under such plans also provide us with shares of common stock necessary to satisfy obligations related to stock compensation awards. On January 25, 2023, our board of directors authorized a \$100.0 million stock repurchase program, allowing us to repurchase shares of our common stock over a one-year period from time to time at various prices in the open market or through private transactions. Under this plan, we repurchased 400,868 shares at a total cost of \$39.0 million (which includes applicable excise taxes) during the nine months ended September 30, 2023. No shares were repurchased under prior plans during the reported periods. Under the Basel III Capital Rules, Cullen/Frost may not repurchase or redeem any of its preferred stock or subordinated notes and, in some cases, its common stock without the prior approval of the Federal Reserve Board.

Dividend Restrictions. In the ordinary course of business, Cullen/Frost is dependent upon dividends from Frost Bank to provide funds for the payment of dividends to shareholders and to provide for other cash requirements, including to repurchase its common stock. Banking regulations may limit the amount of dividends that may be paid. Approval by regulatory authorities is required if the effect of dividends declared would cause the regulatory capital of Frost Bank to fall below specified minimum levels. Approval is also required if dividends declared exceed the net profits for that year combined with the retained net profits for the preceding two years. Under the foregoing dividend restrictions and while maintaining its “well-capitalized” status, at September 30, 2023, Frost Bank could pay aggregate dividends of up to \$1.1 billion to Cullen/Frost without prior regulatory approval.

Under the terms of the junior subordinated deferrable interest debentures that Cullen/Frost has issued to Cullen/Frost Capital Trust II, Cullen/Frost has the right at any time during the term of the debentures to defer the payment of interest at any time or from time to time for an extension period not exceeding 20 consecutive quarterly periods with respect to each extension period. In the event that we have elected to defer interest on the debentures, we may not, with certain exceptions, declare or pay any dividends or distributions on our capital stock or purchase or acquire any of our capital stock.

Under the terms of the Series B Preferred Stock, in the event that we do not declare and pay dividends on the Series B Preferred Stock for the most recent dividend period, we may not, with certain exceptions, declare or pay dividends on, or purchase, redeem or otherwise acquire, shares of our common stock or any of our securities that rank junior to the Series B Preferred Stock.

Note 7 - Derivative Financial Instruments

The fair value of derivative positions outstanding is included in accrued interest receivable and other assets and accrued interest payable and other liabilities in the accompanying consolidated balance sheets and in the net change in each of these financial statement line items in the accompanying consolidated statements of cash flows.

Interest Rate Derivatives. We utilize various interest rate swaps, caps, and floors, among other things, to mitigate exposure to interest rate risk and to facilitate the needs of our customers. Our objectives for utilizing these derivative instruments are described in our 2022 Form 10-K.

The notional amounts and estimated fair values of interest rate derivative contracts are presented in the following table. The fair values of interest rate derivative contracts are estimated utilizing internal valuation methods with observable market data inputs, or as determined by the Chicago Mercantile Exchange (“CME”) for centrally cleared derivative contracts. CME rules legally characterize variation margin payments for centrally cleared derivatives as settlements of the derivatives' exposure rather than collateral. 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. Variation margin, as determined by the CME, is settled daily. As a result, derivative contracts that clear through the CME have an estimated fair value of zero as of September 30, 2023 and December 31, 2022.

	September 30, 2023		December 31, 2022	
	Notional Amount	Estimated Fair Value	Notional Amount	Estimated Fair Value
Derivatives designated as hedges of fair value:				
Financial institution counterparties:				
Loan/lease interest rate swaps – assets	\$ —	\$ —	\$ 1,614	\$ 19
Non-hedging interest rate derivatives:				
Financial institution counterparties:				
Loan/lease interest rate swaps – assets	1,339,716	95,361	1,165,812	70,416
Loan/lease interest rate swaps – liabilities	60,450	(674)	78,798	(1,102)
Loan/lease interest rate caps – assets	226,507	14,062	246,442	15,256
Customer counterparties:				
Loan/lease interest rate swaps – assets	60,450	674	53,570	1,102
Loan/lease interest rate swaps – liabilities	1,339,716	(95,361)	1,175,563	(79,175)
Loan/lease interest rate caps – liabilities	226,507	(14,062)	246,442	(15,256)

The weighted-average rates paid and received for interest rate swaps outstanding at September 30, 2023 were as follows:

	Weighted-Average	
	Interest Rate Paid	Interest Rate Received
Interest rate swaps:		
Non-hedging interest rate swaps – financial institution counterparties	4.27 %	5.46 %
Non-hedging interest rate swaps – customer counterparties	5.46	4.27

The weighted-average strike rate for outstanding interest rate caps was 3.36% at September 30, 2023.

Commodity Derivatives. We enter into commodity swaps and option contracts that are not designated as hedging instruments primarily to accommodate the business needs of our customers. Upon the origination of a commodity swap or option contract with a customer, we simultaneously enter into an offsetting contract with a third-party financial institution to mitigate the exposure to fluctuations in commodity prices.

The notional amounts and estimated fair values of non-hedging commodity swap and option derivative positions outstanding are presented in the following table. We obtain dealer quotations and use internal valuation methods with observable market data inputs to value our commodity derivative positions.

		September 30, 2023		December 31, 2022	
	Notional Units	Notional Amount	Estimated Fair Value	Notional Amount	Estimated Fair Value
Financial institution counterparties:					
Oil – assets	Barrels	3,819	\$ 13,764	4,024	\$ 27,082
Oil – liabilities	Barrels	7,103	(49,509)	6,068	(53,579)
Natural gas – assets	MMBTUs	17,873	6,126	16,539	6,220
Natural gas – liabilities	MMBTUs	8,382	(5,726)	15,682	(19,138)
Customer counterparties:					
Oil – assets	Barrels	7,380	50,384	6,068	54,219
Oil – liabilities	Barrels	3,542	(13,471)	4,024	(26,551)
Natural gas – assets	MMBTUs	8,824	5,745	15,682	19,164
Natural gas – liabilities	MMBTUs	17,431	(5,901)	16,539	(6,124)

Foreign Currency Derivatives. We enter into foreign currency forward and option contracts that are not designated as hedging instruments primarily to accommodate the business needs of our customers. Upon the origination of a foreign currency denominated transaction with a customer, we simultaneously enter into an offsetting contract with a third-party financial institution to negate the exposure to fluctuations in foreign currency exchange rates. We also utilize foreign currency forward contracts and options that are not designated as hedging instruments to mitigate the economic effect of fluctuations in foreign currency exchange rates on foreign currency holdings and certain short-term, non-U.S. dollar denominated loans. The notional amounts and fair values of open foreign currency forward and option contracts are presented in the following table.

		September 30, 2023		December 31, 2022	
	Notional Currency	Notional Amount	Estimated Fair Value	Notional Amount	Estimated Fair Value
Financial institution counterparties:					
Forward and option contracts – assets	EUR	—	\$ —	875	\$ 1
Forward and option contracts – liabilities	EUR	—	—	875	(10)
Customer counterparties:					
Forward and option contracts – assets	EUR	—	—	875	10
Forward and option contracts – liabilities	EUR	—	—	875	(1)

Gains, Losses, and Derivative Cash Flows. For fair value hedges, the changes in the fair value of both the derivative hedging instrument and the hedged item are included in other non-interest income or other non-interest expense. The extent that such changes in fair value do not offset represents hedge ineffectiveness. Net cash flows from interest rate swaps on commercial loans/leases designated as hedging instruments in effective hedges of fair value are included in interest income on loans. For non-hedging derivative instruments, gains and losses due to changes in fair value and all cash flows are included in other non-interest income and other non-interest expense.

Amounts included in the consolidated statements of income related to interest rate derivatives designated as hedges of fair value were as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
Commercial loan/lease interest rate swaps:				
Amount of gain (loss) included in interest income on loans	\$ —	\$ 2	\$ 16	\$ (16)
Amount of (gain) loss included in other non-interest expense	(4)	1	—	6

As stated above, we enter into non-hedge related derivative positions primarily to accommodate the business needs of our customers. Upon the origination of a derivative contract with a customer, we simultaneously enter into an offsetting derivative contract with a third-party financial institution. We recognize immediate income based upon the difference in the bid/ask spread of the underlying transactions with our customers and the third party. Because we act only as an intermediary for our customer, subsequent changes in the fair value of the underlying derivative contracts for the most part offset each other and do not significantly impact our results of operations.

Amounts included in the consolidated statements of income related to non-hedge related derivative instruments are presented in the table below.

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
Non-hedging interest rate derivatives:				
Other non-interest income	\$ 2,049	\$ 140	\$ 3,761	\$ 1,171
Other non-interest expense	—	—	—	—
Non-hedging commodity derivatives:				
Other non-interest income	697	485	1,622	2,063
Non-hedging foreign currency derivatives:				
Other non-interest income	—	—	25	63

Counterparty Credit Risk. Our credit exposure relating to interest rate, commodity and foreign currency derivative contracts with bank customers was approximately \$35.5 million at September 30, 2023. This credit exposure is partly mitigated as transactions with customers are generally secured by the collateral, if any, securing the underlying transaction being hedged. Our credit exposure, net of collateral pledged, relating to interest rate, commodity and foreign currency derivative contracts with upstream financial institution counterparties was approximately \$3.3 million at September 30, 2023. This amount was primarily related to excess collateral we have posted to counterparties combined with a shortfall of collateral we have received from counterparties. Collateral positions are generally cleared on the next business day. Collateral levels for upstream financial institution counterparties are monitored and adjusted, as necessary. See Note 8 – Balance Sheet Offsetting and Repurchase Agreements for additional information regarding our credit exposure with upstream financial institution counterparties. The aggregate fair value of securities we posted as collateral related to derivative contracts totaled \$10.2 million at September 30, 2023.

Note 8 - Balance Sheet Offsetting and Repurchase Agreements

Balance Sheet Offsetting. Certain financial instruments, including resell and repurchase agreements and derivatives, may be eligible for offset in the consolidated balance sheet and/or subject to master netting arrangements or similar agreements. Our derivative transactions with upstream financial institution counterparties are generally executed under International Swaps and Derivative Association (“ISDA”) master agreements which include “right of set-off” provisions. In such cases there is generally a legally enforceable right to offset recognized amounts and there may be an intention to settle such amounts on a net basis. Nonetheless, we do not generally offset such financial instruments for financial reporting purposes.

Information about financial instruments that are eligible for offset in the consolidated balance sheet as of September 30, 2023 is presented in the following tables.

	Gross Amount Recognized	Gross Amount Offset	Net Amount Recognized
September 30, 2023			
Financial assets:			
Derivatives:			
Interest rate contracts	\$ 109,423	\$ —	\$ 109,423
Commodity contracts	19,890	—	19,890
Total derivatives	129,313	—	129,313
Resell agreements	84,650	—	84,650
Total	<u>\$ 213,963</u>	<u>\$ —</u>	<u>\$ 213,963</u>
Financial liabilities:			
Derivatives:			
Interest rate contracts	\$ 674	\$ —	\$ 674
Commodity contracts	55,235	—	55,235
Total derivatives	55,909	—	55,909
Repurchase agreements	3,722,245	—	3,722,245
Total	<u>\$ 3,778,154</u>	<u>\$ —</u>	<u>\$ 3,778,154</u>

	Net Amount Recognized	Gross Amounts Not Offset		Net Amount
		Financial Instruments	Collateral	
September 30, 2023				
Financial assets:				
Derivatives:				
Counterparty B	\$ 29,882	\$ (8,795)	\$ (21,087)	\$ —
Counterparty E	19,272	(597)	(18,675)	—
Counterparty F	19,028	(19,028)	—	—
Counterparty G	9,907	—	(9,907)	—
Other counterparties	51,224	(19,539)	(30,641)	1,044
Total derivatives	129,313	(47,959)	(80,310)	1,044
Resell agreements	84,650	—	(84,650)	—
Total	<u>\$ 213,963</u>	<u>\$ (47,959)</u>	<u>\$ (164,960)</u>	<u>\$ 1,044</u>
Financial liabilities:				
Derivatives:				
Counterparty B	\$ 8,795	\$ (8,795)	\$ —	\$ —
Counterparty E	597	(597)	—	—
Counterparty F	26,978	(19,028)	(7,950)	—
Other counterparties	19,539	(19,539)	—	—
Total derivatives	55,909	(47,959)	(7,950)	—
Repurchase agreements	3,722,245	—	(3,722,245)	—
Total	<u>\$ 3,778,154</u>	<u>\$ (47,959)</u>	<u>\$ (3,730,195)</u>	<u>\$ —</u>

Information about financial instruments that are eligible for offset in the consolidated balance sheet as of December 31, 2022 is presented in the following tables.

	Gross Amount Recognized	Gross Amount Offset	Net Amount Recognized
December 31, 2022			
Financial assets:			
Derivatives:			
Interest rate contracts	\$ 85,691	\$ —	\$ 85,691
Commodity contracts	33,302	—	33,302
Foreign currency contracts	1	—	1
Total derivatives	118,994	—	118,994
Resell agreements	87,150	—	87,150
Total	<u>\$ 206,144</u>	<u>\$ —</u>	<u>\$ 206,144</u>
Financial liabilities:			
Derivatives:			
Interest rate contracts	\$ 1,102	\$ —	\$ 1,102
Commodity contracts	72,717	—	72,717
Foreign currency contracts	10	—	10
Total derivatives	73,829	—	73,829
Repurchase agreements	4,660,641	—	4,660,641
Total	<u>\$ 4,734,470</u>	<u>\$ —</u>	<u>\$ 4,734,470</u>

	Net Amount Recognized	Gross Amounts Not Offset		Net Amount
		Financial Instruments	Collateral	
December 31, 2022				
Financial assets:				
Derivatives:				
Counterparty B	\$ 39,370	\$ (24,500)	\$ (14,870)	\$ —
Counterparty E	14,430	(47)	(14,131)	252
Counterparty F	17,297	(17,297)	—	—
Counterparty G	10,660	—	(10,660)	—
Other counterparties	37,237	(20,684)	(16,307)	246
Total derivatives	118,994	(62,528)	(55,968)	498
Resell agreements	87,150	—	(87,150)	—
Total	<u>\$ 206,144</u>	<u>\$ (62,528)</u>	<u>\$ (143,118)</u>	<u>\$ 498</u>
Financial liabilities:				
Derivatives:				
Counterparty B	\$ 24,500	\$ (24,500)	\$ —	\$ —
Counterparty E	47	(47)	—	—
Counterparty F	27,747	(17,297)	(8,479)	1,971
Counterparty G	—	—	—	—
Other counterparties	21,535	(20,684)	(851)	—
Total derivatives	73,829	(62,528)	(9,330)	1,971
Repurchase agreements	4,660,641	—	(4,660,641)	—
Total	<u>\$ 4,734,470</u>	<u>\$ (62,528)</u>	<u>\$ (4,669,971)</u>	<u>\$ 1,971</u>

Repurchase Agreements. We utilize securities sold under agreements to repurchase to facilitate the needs of our customers and to facilitate secured short-term funding needs. Securities sold under agreements to repurchase are stated at the amount of cash received in connection with the transaction. We monitor collateral levels on a continuous basis. We may be required to provide additional collateral based on the fair value of the underlying securities. Securities pledged as collateral under repurchase agreements are maintained with our safekeeping agents.

The remaining contractual maturity of repurchase agreements in the consolidated balance sheets as of September 30, 2023 and December 31, 2022 is presented in the following tables.

	Remaining Contractual Maturity of the Agreements				
	Overnight and Continuous	Up to 30 Days	30-90 Days	Greater than 90 Days	Total
September 30, 2023					
Repurchase agreements:					
U.S. Treasury	\$ 2,576,399	\$ —	\$ —	\$ —	\$ 2,576,399
Residential mortgage-backed securities	1,145,846	—	—	—	1,145,846
Total borrowings	<u>\$ 3,722,245</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 3,722,245</u>
Gross amount of recognized liabilities for repurchase agreements					<u>\$ 3,722,245</u>
Amounts related to agreements not included in offsetting disclosures above					<u>\$ —</u>
December 31, 2022					
Repurchase agreements:					
U.S. Treasury	\$ 3,735,061	\$ —	\$ —	\$ —	\$ 3,735,061
Residential mortgage-backed securities	925,580	—	—	—	925,580
Total borrowings	<u>\$ 4,660,641</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 4,660,641</u>
Gross amount of recognized liabilities for repurchase agreements					<u>\$ 4,660,641</u>
Amounts related to agreements not included in offsetting disclosures above					<u>\$ —</u>

Note 9 - Stock-Based Compensation

A combined summary of activity in our active stock plans is presented in the table below. Performance stock units outstanding are presented assuming attainment of the maximum payout rate as set forth by the performance criteria. As of September 30, 2023, there were 518,746 shares remaining available for grant for future stock-based compensation awards.

	Deferred Stock Units Outstanding		Non-Vested Restricted Stock Units Outstanding		Performance Stock Units Outstanding		Stock Options Outstanding	
	Number of Units	Weighted-Average Fair Value at Grant	Number of Units	Weighted-Average Fair Value at Grant	Number of Units	Weighted-Average Fair Value at Grant	Number of Shares	Weighted-Average Exercise Price
Balance, January 1, 2023	45,661	\$ 87.15	465,319	\$ 105.36	213,749	\$ 96.20	616,227	\$ 71.27
Granted	8,503	103.47	2,941	125.16	—	—	—	—
Exercised/vested	—	—	(1,957)	91.96	(28,151)	85.74	(42,388)	71.76
Forfeited/expired	—	—	(6,480)	115.63	(18,254)	85.74	—	—
Balance, September 30, 2023	<u>54,164</u>	<u>89.71</u>	<u>459,823</u>	<u>105.40</u>	<u>167,344</u>	<u>99.10</u>	<u>573,839</u>	<u>71.24</u>

Shares issued in connection with stock compensation awards are issued from available treasury shares. If no treasury shares are available, new shares are issued from available authorized shares. Shares issued in connection with stock compensation awards along with other related information were as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
New shares issued from available authorized shares	—	—	49,887	—
Shares issued from available treasury stock	8,483	88,350	22,609	232,612
Proceeds from stock option exercises	\$ 596	\$ 5,270	\$ 3,042	\$ 11,760

Stock-based compensation expense is recognized ratably over the requisite service period for all awards. For most stock option awards, the service period generally matches the vesting period. For stock options granted to certain executive officers and for non-vested stock units granted to all participants, the service period does not extend past the date the participant reaches 65 years of age. Deferred stock units granted to non-employee directors generally have immediate vesting and the related expense is fully recognized on the date of grant. For performance stock units, the service period generally matches the three-year performance period specified by the award, however, the service period does not extend past the date the participant reaches 65 years of age. Expense recognized each period is dependent upon our estimate of the number of shares that will ultimately be issued.

Stock-based compensation expense or benefit and the related income tax benefit is presented in the following table. The service period for performance stock units granted each year begins on January 1 of the following year.

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
Non-vested stock units	\$ 2,423	\$ 2,174	\$ 8,594	\$ 6,823
Deferred stock units	—	—	880	720
Performance stock units	688	999	3,172	1,160
Total	\$ 3,111	\$ 3,173	\$ 12,646	\$ 8,703
Income tax benefit	\$ 531	\$ 440	\$ 2,399	\$ 1,760

Unrecognized stock-based compensation expense at September 30, 2023 is presented in the table below. Unrecognized stock-based compensation expense related to performance stock units is presented assuming attainment of the maximum payout rate as set forth by the performance criteria.

Non-vested stock units	\$ 12,839
Performance stock units	6,341
Total	\$ 19,180

Note 10 - Earnings Per Common Share

Earnings per common share is computed using the two-class method as more fully described in our 2022 Form 10-K. The following table presents a reconciliation of net income available to common shareholders, net earnings allocated to common stock and the number of shares used in the calculation of basic and diluted earnings per common share.

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
Net income	\$ 155,651	\$ 169,760	\$ 495,422	\$ 387,976
Less: Preferred stock dividends	1,668	1,668	5,006	5,006
Net income available to common shareholders	153,983	168,092	490,416	382,970
Less: Earnings allocated to participating securities	1,533	1,503	5,016	3,414
Net earnings allocated to common stock	\$ 152,450	\$ 166,589	\$ 485,400	\$ 379,556
Distributed earnings allocated to common stock	\$ 58,913	\$ 55,820	\$ 170,702	\$ 151,963
Undistributed earnings allocated to common stock	93,537	110,769	314,698	227,593
Net earnings allocated to common stock	\$ 152,450	\$ 166,589	\$ 485,400	\$ 379,556
Weighted-average shares outstanding for basic earnings per common share	64,067,352	64,157,662	64,226,113	64,107,621
Dilutive effect of stock compensation	171,892	343,750	208,187	369,268
Weighted-average shares outstanding for diluted earnings per common share	64,239,244	64,501,412	64,434,300	64,476,889

Note 11 - Defined Benefit Plans

The components of the combined net periodic expense (benefit) for our defined benefit pension plans are presented in the table below.

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
Expected return on plan assets, net of expenses	\$ (2,740)	\$ (3,492)	\$ (8,220)	\$ (6,983)
Interest cost on projected benefit obligation	1,746	1,004	5,238	2,008
Net amortization and deferral	869	741	2,609	1,482
Net periodic expense (benefit)	\$ (125)	\$ (1,747)	\$ (373)	\$ (3,493)

Our non-qualified defined benefit pension plan is not funded. No contributions to the qualified defined benefit pension plan were made during the nine months ended September 30, 2023. We do not expect to make any contributions to the qualified defined benefit plan during the remainder of 2023.

Note 12 - Income Taxes

Income tax expense was as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
Current income tax expense	\$ 31,890	\$ 28,684	\$ 99,298	\$ 64,389
Deferred income tax expense (benefit)	(558)	(974)	(3,047)	(3,378)
Income tax expense, as reported	\$ 31,332	\$ 27,710	\$ 96,251	\$ 61,011
Effective tax rate	16.8 %	14.0 %	16.3 %	13.6 %

We had a net deferred tax asset totaling \$491.9 million at September 30, 2023 and \$374.4 million at December 31, 2022. No valuation allowance for deferred tax assets was recorded at September 30, 2023 as management believes it is more likely than not that all of the deferred tax assets will be realized against deferred tax liabilities and projected future taxable income.

The effective income tax rates differed from the U.S. statutory federal income tax rates of 21% during the comparable periods primarily due to the effect of tax-exempt income from securities, loans and life insurance policies and the income tax effects associated with stock-based compensation, among other things. There were no unrecognized tax benefits during any of the reported periods. Interest and/or penalties related to income taxes are reported as a component of income tax expense. Such amounts were not significant during the reported periods.

We file income tax returns in the U.S. federal jurisdiction. We are no longer subject to U.S. federal income tax examinations by tax authorities for years before 2019.

Note 13 - Other Comprehensive Income (Loss)

The before and after-tax amounts allocated to each component of other comprehensive income (loss) are presented in the following table. Reclassification adjustments related to securities available for sale are included in net gain (loss) on securities transactions in the accompanying consolidated statements of income. Reclassification adjustments related to defined-benefit post-retirement benefit plans are included in the computation of net periodic pension expense (see Note 11 – Defined Benefit Plans).

	Three Months Ended September 30, 2023			Three Months Ended September 30, 2022		
	Before Tax Amount	Tax Expense, (Benefit)	Net of Tax Amount	Before Tax Amount	Tax Expense, (Benefit)	Net of Tax Amount
Securities available for sale and transferred securities:						
Change in net unrealized gain/loss during the period	\$ (600,441)	\$ (126,092)	\$ (474,349)	\$ (829,324)	\$ (174,158)	\$ (655,166)
Change in net unrealized gain on securities transferred to held to maturity	(164)	(35)	(129)	(174)	(36)	(138)
Reclassification adjustment for net (gains) losses included in net income	(12)	(3)	(9)	—	—	—
Total securities available for sale and transferred securities	(600,617)	(126,130)	(474,487)	(829,498)	(174,194)	(655,304)
Defined-benefit post-retirement benefit plans:						
Reclassification adjustment for net amortization of actuarial gain/loss included in net income as a component of net periodic cost (benefit)	869	182	687	741	156	585
Total defined-benefit post-retirement benefit plans	869	182	687	741	156	585
Total other comprehensive income (loss)	<u>\$ (599,748)</u>	<u>\$ (125,948)</u>	<u>\$ (473,800)</u>	<u>\$ (828,757)</u>	<u>\$ (174,038)</u>	<u>\$ (654,719)</u>
	Nine Months Ended September 30, 2023			Nine Months Ended September 30, 2022		
	Before Tax Amount	Tax Expense, (Benefit)	Net of Tax Amount	Before Tax Amount	Tax Expense, (Benefit)	Net of Tax Amount
Securities available for sale and transferred securities:						
Change in net unrealized gain/loss during the period	\$ (547,035)	\$ (114,877)	\$ (432,158)	\$ (2,376,642)	\$ (499,095)	\$ (1,877,547)
Change in net unrealized gain on securities transferred to held to maturity	(486)	(102)	(384)	(572)	(120)	(452)
Reclassification adjustment for net (gains) losses included in net income	(66)	(14)	(52)	—	—	—
Total securities available for sale and transferred securities	(547,587)	(114,993)	(432,594)	(2,377,214)	(499,215)	(1,877,999)
Defined-benefit post-retirement benefit plans:						
Reclassification adjustment for net amortization of actuarial gain/loss included in net income as a component of net periodic expense (benefit)	2,609	548	2,061	2,223	467	1,756
Total defined-benefit post-retirement benefit plans	2,609	548	2,061	2,223	467	1,756
Total other comprehensive income (loss)	<u>\$ (544,978)</u>	<u>\$ (114,445)</u>	<u>\$ (430,533)</u>	<u>\$ (2,374,991)</u>	<u>\$ (498,748)</u>	<u>\$ (1,876,243)</u>

Activity in accumulated other comprehensive income (loss), net of tax, was as follows:

	Securities Available For Sale	Defined Benefit Plans	Accumulated Other Comprehensive Income
Balance at January 1, 2023	\$ (1,313,791)	\$ (34,503)	\$ (1,348,294)
Other comprehensive income (loss) before reclassifications	(432,542)	—	(432,542)
Reclassification of amounts included in net income	(52)	2,061	2,009
Net other comprehensive income (loss) during period	(432,594)	2,061	(430,533)
Balance at September 30, 2023	\$ (1,746,385)	\$ (32,442)	\$ (1,778,827)
Balance at January 1, 2022	\$ 380,209	\$ (32,891)	\$ 347,318
Other comprehensive income (loss) before reclassifications	(1,877,999)	—	(1,877,999)
Reclassification of amounts included in net income	—	1,756	1,756
Net other comprehensive income (loss) during period	(1,877,999)	1,756	(1,876,243)
Balance at September 30, 2022	\$ (1,497,790)	\$ (31,135)	\$ (1,528,925)

Note 14 – Operating Segments

We are managed under a matrix organizational structure whereby our two primary operating segments, Banking and Frost Wealth Advisors, overlap a regional reporting structure. See our 2022 Form 10-K for additional information regarding our operating segments. Summarized operating results by segment were as follows:

	Banking	Frost Wealth Advisors	Non-Banks	Consolidated
Three months ended:				
September 30, 2023				
Net interest income (expense)	\$ 386,832	\$ 2,018	\$ (3,424)	\$ 385,426
Credit loss expense	11,185	—	—	11,185
Non-interest income	62,518	43,903	(423)	105,998
Non-interest expense	254,747	37,304	1,205	293,256
Income (loss) before income taxes	183,418	8,617	(5,052)	186,983
Income tax expense (benefit)	31,021	1,809	(1,498)	31,332
Net income (loss)	152,397	6,808	(3,554)	155,651
Preferred stock dividends	—	—	1,668	1,668
Net income (loss) available to common shareholders	\$ 152,397	\$ 6,808	\$ (5,222)	\$ 153,983
Revenues from (expenses to) external customers	\$ 449,350	\$ 45,921	\$ (3,847)	\$ 491,424
September 30, 2022				
Net interest income (expense)	\$ 356,513	\$ 1,357	\$ (2,323)	\$ 355,547
Credit loss expense (benefit)	—	—	—	—
Non-interest income	55,994	44,263	(436)	99,821
Non-interest expense	223,192	33,531	1,175	257,898
Income (loss) before income taxes	189,315	12,089	(3,934)	197,470
Income tax expense (benefit)	26,520	2,539	(1,349)	27,710
Net income (loss)	162,795	9,550	(2,585)	169,760
Preferred stock dividends	—	—	1,668	1,668
Net income (loss) available to common shareholders	\$ 162,795	\$ 9,550	\$ (4,253)	\$ 168,092
Revenues from (expenses to) external customers	\$ 412,507	\$ 45,620	\$ (2,759)	\$ 455,368

	Banking	Frost Wealth Advisors	Non-Banks	Consolidated
Nine months ended:				
September 30, 2023				
Net interest income (expense)	\$ 1,172,689	\$ 5,762	\$ (7,939)	\$ 1,170,512
Credit loss expense (benefit)	30,190	—	—	30,190
Non-interest income	183,969	132,088	(1,266)	314,791
Non-interest expense	751,539	106,811	5,090	863,440
Income (loss) before income taxes	574,929	31,039	(14,295)	591,673
Income tax expense (benefit)	93,775	6,518	(4,042)	96,251
Net income (loss)	481,154	24,521	(10,253)	495,422
Preferred stock dividends	—	—	5,006	5,006
Net income (loss) available to common shareholders	\$ 481,154	\$ 24,521	\$ (15,259)	\$ 490,416
Revenues from (expenses to) external customers	\$ 1,356,658	\$ 137,850	\$ (9,205)	\$ 1,485,303
September 30, 2022				
Net interest income (expense)	\$ 895,818	\$ 3,015	\$ (6,007)	\$ 892,826
Credit loss expense	—	—	—	—
Non-interest income	170,097	130,546	(1,505)	299,138
Non-interest expense	640,774	97,599	4,604	742,977
Income (loss) before income taxes	425,141	35,962	(12,116)	448,987
Income tax expense (benefit)	57,355	7,552	(3,896)	61,011
Net income (loss)	367,786	28,410	(8,220)	387,976
Preferred stock dividends	—	—	5,006	5,006
Net income (loss) available to common shareholders	\$ 367,786	\$ 28,410	\$ (13,226)	\$ 382,970
Revenues from (expenses to) external customers	\$ 1,065,915	\$ 133,561	\$ (7,512)	\$ 1,191,964

Note 15 – Fair Value Measurements

The fair value of an asset or liability is the price that would be received to sell that asset or paid to transfer that liability in an orderly transaction occurring in the principal market (or most advantageous market in the absence of a principal market) for such asset or liability. In estimating fair value, we utilize valuation techniques that are consistent with the market approach, the income approach and/or the cost approach. Such valuation techniques are consistently applied. Inputs to valuation techniques include the assumptions that market participants would use in pricing an asset or liability. ASC Topic 820 establishes a three-level fair value hierarchy for valuation inputs that gives the highest priority to quoted prices in active markets for identical assets or liabilities and the lowest priority to unobservable inputs. See our 2022 Form 10-K for additional information regarding the fair value hierarchy and a description of our valuation techniques.

Financial Assets and Financial Liabilities. The tables below summarize financial assets and financial liabilities measured at fair value on a recurring basis as of September 30, 2023 and December 31, 2022, segregated by the level of the valuation inputs within the fair value hierarchy of ASC Topic 820 utilized to measure fair value.

	Level 1 Inputs	Level 2 Inputs	Level 3 Inputs	Total Fair Value
September 30, 2023				
Securities available for sale:				
U.S. Treasury	\$ 5,043,152	\$ —	\$ —	\$ 5,043,152
Residential mortgage-backed securities	—	6,306,634	—	6,306,634
States and political subdivisions	—	4,724,633	—	4,724,633
Other	—	42,670	—	42,670
Trading account securities:				
U.S. Treasury	29,065	—	—	29,065
States and political subdivisions	—	276	—	276
Derivative assets:				
Interest rate swaps, caps, and floors	—	110,097	—	110,097
Commodity swaps and options	—	76,019	—	76,019
Derivative liabilities:				
Interest rate swaps, caps, and floors	—	110,097	—	110,097
Commodity swaps and options	—	74,607	—	74,607
December 31, 2022				
Securities available for sale:				
U.S. Treasury	\$ 5,051,587	\$ —	\$ —	\$ 5,051,587
Residential mortgage-backed securities	—	6,376,236	—	6,376,236
States and political subdivisions	—	6,773,355	—	6,773,355
Other	—	42,427	—	42,427
Trading account securities:				
U.S. Treasury	25,879	—	—	25,879
States and political subdivisions	—	2,166	—	2,166
Derivative assets:				
Interest rate swaps, caps, and floors	—	86,793	—	86,793
Commodity swaps and options	—	106,685	—	106,685
Foreign currency forward contracts	11	—	—	11
Derivative liabilities:				
Interest rate swaps, caps, and floors	—	95,533	—	95,533
Commodity swaps and options	—	105,392	—	105,392
Foreign currency forward contracts	11	—	—	11

Certain financial assets and financial liabilities are measured at fair value on a nonrecurring basis; that is, the instruments are not measured at fair value on an ongoing basis but are subject to fair value adjustments in certain circumstances. Financial assets measured at fair value on a non-recurring basis during the reported periods include certain collateral dependent loans reported at the fair value of the underlying collateral if repayment is expected solely from the collateral.

The following table presents collateral dependent loans that were remeasured and reported at fair value through a specific allocation of the allowance for credit losses on loans based upon the fair value of the underlying collateral during the reported periods.

	Nine Months Ended September 30, 2023		Nine Months Ended September 30, 2022	
	Level 2	Level 3	Level 2	Level 3
Carrying value before allocations	\$ 20,051	\$ 24,921	\$ 7,999	\$ 2,087
Specific (allocations) reversals of prior allocations	(1,452)	(4,849)	(1,742)	4,881
Fair value	<u>\$ 18,599</u>	<u>\$ 20,072</u>	<u>\$ 6,257</u>	<u>\$ 6,968</u>

Non-Financial Assets and Non-Financial Liabilities. We do not have any non-financial assets or non-financial liabilities measured at fair value on a recurring basis. From time to time, non-financial assets measured at fair value on a non-recurring basis may include certain foreclosed assets which, upon initial recognition, were remeasured and reported at fair value through a charge-off to the allowance for loan losses and certain foreclosed assets which, subsequent to their initial recognition, were remeasured at fair value through a write-down included in other non-interest expense. There were no such fair value measurements during the reported periods.

Financial Instruments Reported at Amortized Cost. The estimated fair values of financial instruments that are reported at amortized cost in our consolidated balance sheets, segregated by the level of the valuation inputs within the fair value hierarchy utilized to measure fair value, were as follows:

	September 30, 2023		December 31, 2022	
	Carrying Amount	Estimated Fair Value	Carrying Amount	Estimated Fair Value
Financial assets:				
Level 2 inputs:				
Cash and cash equivalents	\$ 7,618,083	\$ 7,618,083	\$ 12,028,132	\$ 12,028,132
Securities held to maturity	3,628,123	3,231,691	2,639,083	2,467,865
Accrued interest receivable	199,344	199,344	243,682	243,682
Level 3 inputs:				
Loans, net	18,157,024	17,496,332	16,927,348	16,343,417
Financial liabilities:				
Level 2 inputs:				
Deposits	40,992,235	40,971,688	43,954,196	43,920,741
Federal funds purchased	25,950	25,950	51,650	51,650
Repurchase agreements	3,722,245	3,722,245	4,660,641	4,660,641
Junior subordinated deferrable interest debentures	123,112	123,712	123,069	123,712
Subordinated notes	99,452	94,311	99,335	97,014
Accrued interest payable	51,468	51,468	18,444	18,444

Under ASC Topic 825, entities may choose to measure eligible financial instruments at fair value at specified election dates. The fair value measurement option (i) may be applied instrument by instrument, with certain exceptions, (ii) is generally irrevocable and (iii) is applied only to entire instruments and not to portions of instruments. Unrealized gains and losses on items for which the fair value measurement option has been elected must be reported in earnings at each subsequent reporting date. During the reported periods, we had no financial instruments measured at fair value under the fair value measurement option.

Note 16 - Accounting Standards Updates

Information about certain recently issued accounting standards updates is presented below. Also refer to Note 20 - Accounting Standards Updates in our 2022 Form 10-K for additional information related to previously issued accounting standards updates.

ASU 2022-02, “Financial Instruments - Credit Losses (Topic 326): Troubled Debt Restructurings and Vintage Disclosures.” ASU 2022-02 eliminates the accounting guidance for troubled debt restructurings in Accounting Standards Codification (“ASC”) 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. Additionally, ASU 2022-02 requires entities to disclose current-period gross write-offs by year of origination for financing receivables and net investments in leases within the scope of ASC Subtopic 3126-20, Financial Instruments - Credit Losses - Measured at Amortized Cost. ASU 2022-02 became effective for us on January 1, 2023. See Note 3 - Loans for the new financial statement disclosures applicable under this update.

ASU 2023-01, “Leases (Topic 842): Common Control Arrangements.” ASU 2023-01 requires entities to amortize leasehold improvements associated with common control leases over the useful life to the common control group. ASU 2023-01 also provides certain practical expedients applicable to private companies and not-for-profit organizations. ASU 2023-01 will be effective for us on January 1, 2024, though early adoption is permitted, and its adoption is not expected to have a significant effect on our financial statements.

ASU No. 2023-02, “Investments - Equity Method and Joint Ventures (Topic 323): Accounting for Investments in Tax Credit Structures Using the Proportional Amortization Method.” ASU 2023-02 is intended to improve the accounting and disclosures for investments in tax credit structures. ASU 2023-02 allows entities to elect to account for qualifying tax equity investments using the proportional amortization method, regardless of the program giving rise to the related income tax credits. Previously, this method was only available for qualifying tax equity investments in low-income housing tax credit structures. ASU 2023-02 will be effective for us on January 1, 2024, though early adoption is permitted, and its adoption is not expected to have a significant effect on our financial statements.

ASU No. 2023-03, “Presentation of Financial Statements (Topic 205), Income Statement - Reporting Comprehensive Income (Topic 220), Distinguishing Liabilities from Equity (Topic 480), Equity (Topic 505), and Compensation - Stock Compensation (Topic 718): Amendments to SEC Paragraphs Pursuant to SEC Staff Accounting Bulletin No. 120, SEC Staff Announcement at the March 24, 2022 EITF Meeting, and Staff Accounting Bulletin Topic 6.B, Accounting Series Release 280 - General Revision of Regulation S-X: Income or Loss Applicable to Common Stock.” ASU 2023-03 amends the ASC for SEC updates pursuant to SEC Staff Accounting Bulletin No. 120; SEC Staff Announcement at the March 24, 2022 Emerging Issues Task Force (“EITF”) Meeting; and Staff Accounting Bulletin Topic 6.B, Accounting Series Release 280 - General Revision of Regulation S-X: Income or Loss Applicable to Common Stock. These updates were immediately effective and did not have a significant impact on our financial statements.

ASU 2023-06, “Disclosure Improvements - Codification Amendments in Response to the SEC’s Disclosure Update and Simplification Initiative.” ASU 2023-06 amends the ASC to incorporate certain disclosure requirements from SEC Release No. 33-10532 - Disclosure Update and Simplification that was issued in 2018. The effective date for each amendment will be the date on which the SEC’s removal of that related disclosure from Regulation S-X or Regulation S-K becomes effective, with early adoption prohibited. ASU 2023-06 is not expected to have a significant impact on our financial statements.

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

Financial Review

Cullen/Frost Bankers, Inc.

The following discussion should be read in conjunction with our consolidated financial statements, and notes thereto, for the year ended December 31, 2022, and the other information included in the 2022 Form 10-K. Operating results for the three and nine months ended September 30, 2023 are not necessarily indicative of the results for the year ending December 31, 2023 or any future period.

Dollar amounts in tables are stated in thousands, except for per share amounts.

Forward-Looking Statements and Factors that Could Affect Future Results

Certain statements contained in this Quarterly Report on Form 10-Q that are not statements of historical fact constitute forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995 (the "Act"), notwithstanding that such statements are not specifically identified as such. In addition, certain statements may be contained in our future filings with the SEC, in press releases, and in oral and written statements made by us or with our approval that are not statements of historical fact and constitute forward-looking statements within the meaning of the Act. Examples of forward-looking statements include, but are not limited to: (i) projections of revenues, expenses, income or loss, earnings or loss per share, the payment or nonpayment of dividends, capital structure and other financial items; (ii) statements of plans, objectives and expectations of Cullen/Frost or its management or Board of Directors, including those relating to products, services or operations; (iii) statements of future economic performance; and (iv) statements of assumptions underlying such statements. Words such as "believes", "anticipates", "expects", "intends", "targeted", "continue", "remain", "will", "should", "may" and other similar expressions are intended to identify forward-looking statements but are not the exclusive means of identifying such statements.

Forward-looking statements involve risks and uncertainties that may cause actual results to differ materially from those in such statements. Factors that could cause actual results to differ from those discussed in the forward-looking statements include, but are not limited to:

- The effects of and changes in trade and monetary and fiscal policies and laws, including the interest rate policies of the Federal Reserve Board.
- Inflation, interest rate, securities market, and monetary fluctuations.
- Local, regional, national, and international economic conditions and the impact they may have on us and our customers and our assessment of that impact.
- Changes in the financial performance and/or condition of our borrowers.
- Changes in the mix of loan geographies, sectors and types or the level of non-performing assets and charge-offs.
- Changes in estimates of future credit loss reserve requirements based upon the periodic review thereof under relevant regulatory and accounting requirements.
- Changes in our liquidity position.
- Impairment of our goodwill or other intangible assets.
- The timely development and acceptance of new products and services and perceived overall value of these products and services by users.
- Changes in consumer spending, borrowing, and saving habits.
- Greater than expected costs or difficulties related to the integration of new products and lines of business.
- Technological changes.
- The cost and effects of cyber incidents or other failures, interruptions, or security breaches of our systems or those of our customers or third-party providers.
- Acquisitions and integration of acquired businesses.
- Changes in the reliability of our vendors, internal control systems or information systems.
- Our ability to increase market share and control expenses.
- Our ability to attract and retain qualified employees.
- Changes in our organization, compensation, and benefit plans.
- The soundness of other financial institutions.
- Volatility and disruption in national and international financial and commodity markets.
- Changes in the competitive environment in our markets and among banking organizations and other financial service providers.
- Government intervention in the U.S. financial system.
- Political or economic instability.
- Acts of God or of war or terrorism.

- The potential impact of climate change.
- The impact of pandemics, epidemics, or any other health-related crisis.
- The costs and effects of legal and regulatory developments, the resolution of legal proceedings or regulatory or other governmental inquiries, the results of regulatory examinations or reviews and the ability to obtain required regulatory approvals.
- The effect of changes in laws and regulations (including laws and regulations concerning taxes, banking, securities, and insurance) and their application with which we and our subsidiaries must comply.
- The effect of changes in accounting policies and practices, as may be adopted by the regulatory agencies, as well as the Public Company Accounting Oversight Board, the Financial Accounting Standards Board and other accounting standard setters.
- Our success at managing the risks involved in the foregoing items.

In addition, financial markets and global supply chains may continue to be adversely affected by the current or anticipated impact of global wars/military conflicts, terrorism, or other geopolitical events.

Forward-looking statements speak only as of the date on which such statements are made. We do not undertake any obligation to update any forward-looking statement to reflect events or circumstances after the date on which such statement is made, or to reflect the occurrence of unanticipated events.

Application of Critical Accounting Policies and Accounting Estimates

We follow accounting and reporting policies that conform, in all material respects, to accounting principles generally accepted in the United States and to general practices within the financial services industry. The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. While we base estimates on historical experience, current information and other factors deemed to be relevant, actual results could differ from those estimates.

We consider accounting estimates to be critical to reported financial results if (i) the accounting estimate requires management to make assumptions about matters that are highly uncertain and (ii) different estimates that management reasonably could have used for the accounting estimate in the current period, or changes in the accounting estimate that are reasonably likely to occur from period to period, could have a material impact on our financial statements.

Accounting policies related to the allowance for credit losses on financial instruments including loans and off-balance-sheet credit exposures are considered to be critical as these policies involve considerable subjective judgment and estimation by management. In the case of loans, the allowance for credit losses is a contra-asset valuation account, calculated in accordance with Accounting Standards Codification (“ASC”) Topic 326 (“ASC 326”) Financial Instruments - Credit Losses, that is deducted from the amortized cost basis of loans to present the net amount expected to be collected. In the case of off-balance-sheet credit exposures, the allowance for credit losses is a liability account, calculated in accordance with ASC 326, reported as a component of accrued interest payable and other liabilities in our consolidated balance sheets. The amount of each allowance account represents management's best estimate of current expected credit losses on these financial instruments considering available information, from internal and external sources, relevant to assessing exposure to credit loss over the contractual term of the instrument. Relevant available information includes historical credit loss experience, current conditions, and reasonable and supportable forecasts. While historical credit loss experience provides the basis for the estimation of expected credit losses, adjustments to historical loss information may be made for differences in current portfolio-specific risk characteristics, environmental conditions, or other relevant factors. While management utilizes its best judgment and information available, the ultimate adequacy of our allowance accounts is dependent upon a variety of factors beyond our control, including the performance of our portfolios, the economy, changes in interest rates and the view of the regulatory authorities toward classification of assets. Refer to the 2022 Form 10-K for additional information regarding critical accounting policies.

Overview

A discussion of our results of operations is presented below. Certain reclassifications have been made to make prior periods comparable. Taxable-equivalent adjustments are the result of increasing income from tax-free loans and investments by an amount equal to the taxes that would be paid if the income were fully taxable based on a 21% federal tax rate, thus making tax-exempt yields comparable to taxable asset yields.

Results of Operations

Net income available to common shareholders totaled \$154.0 million, or \$2.38 per diluted common share, and \$490.4 million, or \$7.54 per diluted common share, for the three and nine months ended September 30, 2023 compared to \$168.1 million, or \$2.59 per diluted common share, and \$383.0 million, or \$5.90 per diluted common share for the three and nine months ended September 30, 2022.

Selected data for the comparable periods was as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
Taxable-equivalent net interest income	\$ 407,353	\$ 379,518	\$ 1,241,791	\$ 963,089
Taxable-equivalent adjustment	21,927	23,971	71,279	70,263
Net interest income	385,426	355,547	1,170,512	892,826
Credit loss expense	11,185	—	30,190	—
Net interest income after credit loss expense	374,241	355,547	1,140,322	892,826
Non-interest income	105,998	99,821	314,791	299,138
Non-interest expense	293,256	257,898	863,440	742,977
Income before income taxes	186,983	197,470	591,673	448,987
Income taxes	31,332	27,710	96,251	61,011
Net income	155,651	169,760	495,422	387,976
Preferred stock dividends	1,668	1,668	5,006	5,006
Net income available to common shareholders	\$ 153,983	\$ 168,092	\$ 490,416	\$ 382,970
Earnings per common share – basic	\$ 2.38	\$ 2.60	\$ 7.56	\$ 5.92
Earnings per common share – diluted	2.38	2.59	7.54	5.90
Dividends per common share	0.92	0.87	2.66	2.37
Return on average assets	1.25 %	1.27 %	1.32 %	1.00 %
Return on average common equity	18.93	20.13	20.25	14.19
Average shareholders' equity to average assets	6.91	6.60	6.79	7.32

Net income available to common shareholders decreased \$14.1 million, or 8.4%, for the three months ended September 30, 2023 and increased \$107.4 million, or 28.1%, for the nine months ended September 30, 2023 compared to the same respective periods in 2022. The decrease during the three months ended September 30, 2023 was primarily the result of a \$35.4 million increase in non-interest expense, an \$11.2 million increase in credit loss expense, and a \$3.6 million increase in income tax expense partly offset by a \$29.9 million increase in net interest income and a \$6.2 million increase in non-interest income. The increase during the nine months ended September 30, 2023 was primarily the result of a \$277.7 million increase in net interest income and a \$15.7 million increase in non-interest income partly offset by a \$120.5 million increase in non-interest expense, a \$35.2 million increase in income tax expense, and a \$30.2 million increase in credit loss expense. Details of the changes in the various components of net income are further discussed below.

Net Interest Income

Net interest income is the difference between interest income on earning assets, such as loans and securities, and interest expense on liabilities, such as deposits and borrowings, which are used to fund those assets. Net interest income is our largest source of revenue, representing 78.8% of total revenue during the first nine months of 2023. Net interest margin is the ratio of taxable-equivalent net interest income to average earning assets for the period. The level of interest rates and the volume and mix of earning assets and interest-bearing liabilities impact net interest income and net interest margin.

The Federal Reserve influences the general market rates of interest, including the deposit and loan rates offered by many financial institutions. As of September 30, 2023, approximately 43.1% of our loans had a fixed interest rate, while the remaining loans had floating interest rates that were primarily tied to a benchmark developed by the American Financial Exchange, the Secured Overnight Financing Rate (“SOFR”) (approximately 24.4%); the prime interest rate (approximately 23.3%); or the American Interbank Offered Rate (“AMERIBOR”) (approximately 8.7%). Certain other loans are tied to a benchmark developed by Bloomberg Index Services (“BSBY”) or other indices, however, such loans do not make up a significant portion of our loan portfolio as of September 30, 2023.

Select average market rates for the periods indicated are presented in the table below.

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
Federal funds target rate upper bound	5.43 %	2.37 %	5.10 %	1.21 %
Effective federal funds rate	5.26	2.18	4.92	1.03
Interest on reserve balances at the Federal Reserve	5.33	2.25	4.99	1.10
Prime	8.43	5.37	8.09	4.21
AMERIBOR Term-30 ⁽¹⁾	5.31	2.29	4.98	1.13
AMERIBOR Term-90 ⁽¹⁾	5.54	2.89	5.25	1.62
1-Month Term SOFR ⁽²⁾	5.29	2.43	4.98	1.18
3-Month Term SOFR ⁽²⁾	5.37	2.82	5.09	1.49
Bloomberg 1-Month Short-Term Bank Yield Index	5.34	2.35	5.00	1.14
Bloomberg 3-Month Short-Term Bank Yield Index	5.53	2.89	5.22	1.60
1-Month LIBOR ⁽³⁾	N/A	2.47	4.85	1.24
3-Month LIBOR ⁽³⁾	N/A	3.00	5.15	1.68

(1) AMERIBOR Term-30 and AMERIBOR Term-90 are published by the American Financial Exchange.

(2) 1-Month Term SOFR and 3-Month Term SOFR market data are the property of Chicago Mercantile Exchange, Inc., or its licensors as applicable. All rights reserved, or otherwise licensed by Chicago Mercantile Exchange, Inc.

(3) 1-Month and 3-Month LIBOR ceased to be published effective June 30, 2023. Accordingly, average rates reflect through that date.

As of September 30, 2023, the target range for the federal funds rate was 5.25% to 5.50%. In September 2023, the Federal Reserve released projections whereby the midpoint of the projected appropriate target range for the federal funds rate would rise to 5.6% by the end of 2023 and subsequently decrease to 5.1% by the end of 2024. While there can be no such assurance that any increases or decreases in the federal funds rate will occur, these projections imply up to a 25 basis point increase in the federal funds rate during the remainder of 2023, followed by a 50 basis point decrease in 2024.

We are primarily funded by core deposits, with non-interest-bearing demand deposits historically being a significant source of funds. This lower-cost funding base is expected to have a positive impact on our net interest income and net interest margin in a rising interest rate environment. Nonetheless, our access to and pricing of deposits may be negatively impacted by, among other factors, periods of higher interest rates which could promote increased competition for deposits, including from new financial technology competitors, or provide customers with alternative investment options. See Item 3. Quantitative and Qualitative Disclosures About Market Risk elsewhere in this report for information about our sensitivity to interest rates. Further analysis of the components of our net interest margin is presented below.

The following tables present an analysis of net interest income and net interest spread for the periods indicated, including average outstanding balances for each major category of interest-earning assets and interest-bearing liabilities, the interest earned or paid on such amounts, and the average rate earned or paid on such assets or liabilities, respectively. The tables also set forth the net interest margin on average total interest-earning assets for the same periods. For these computations: (i) average balances are presented on a daily average basis, (ii) information is shown on a taxable-equivalent basis assuming a 21% tax rate, (iii) average loans include loans on non-accrual status, and (iv) average securities include unrealized gains and losses on securities available for sale, while yields are based on average amortized cost.

	Quarter To Date September 30, 2023			Quarter To Date September 30, 2022		
	Average Balance	Interest Income/ Expense	Yield/ Cost	Average Balance	Interest Income/ Expense	Yield/ Cost
Assets:						
Interest-bearing deposits	\$ 6,746,560	\$ 91,904	5.33 %	\$ 12,776,193	\$ 74,257	2.27 %
Federal funds sold	12,675	183	5.65	50,656	316	2.44
Resell agreements	84,664	1,197	5.53	10,471	64	2.39
Securities:						
Taxable	13,565,303	103,875	2.76	11,486,105	68,311	2.20
Tax-exempt	6,991,710	76,714	4.26	7,915,790	81,831	4.09
Total securities	20,557,013	180,589	3.24	19,401,895	150,142	2.94
Loans, net of unearned discounts	17,965,343	309,166	6.83	16,822,933	207,522	4.89
Total Earning Assets and Average Rate Earned	45,366,255	583,039	4.92	49,062,148	432,301	3.43
Cash and due from banks	590,526			633,905		
Allowance for credit losses on loans and securities	(235,507)			(238,623)		
Premises and equipment, net	1,163,204			1,061,315		
Accrued interest and other assets	1,919,314			1,864,046		
Total Assets	\$ 48,803,792			\$ 52,382,791		
Liabilities:						
Non-interest-bearing demand deposits	14,822,586			18,511,055		
Interest-bearing deposits:						
Savings and interest checking	10,202,037	9,757	0.38	12,235,537	2,159	0.07
Money market deposit accounts	11,143,718	77,997	2.78	13,465,863	36,568	1.08
Time accounts	4,659,395	51,025	4.34	1,590,561	3,955	0.99
Total interest-bearing deposits	26,005,150	138,779	2.12	27,291,961	42,682	0.62
Total deposits	40,827,736		1.35	45,803,016		0.37
Federal funds purchased	21,181	288	5.32	41,718	249	2.33
Repurchase agreements	3,536,167	33,195	3.67	1,959,630	7,529	1.50
Junior subordinated deferrable interest debentures	123,107	2,260	7.34	123,049	1,159	3.77
Subordinated notes	99,437	1,164	4.69	99,281	1,164	4.69
Total Interest-Bearing Funds and Average Rate Paid	29,785,042	175,686	2.33	29,515,639	52,783	0.71
Accrued interest and other liabilities	823,756			897,094		
Total Liabilities	45,431,384			48,923,788		
Shareholders' Equity	3,372,408			3,459,003		
Total Liabilities and Shareholders' Equity	\$ 48,803,792			\$ 52,382,791		
Net interest income		\$ 407,353			\$ 379,518	
Net interest spread			2.59 %			2.72 %
Net interest income to total average earning assets			3.44 %			3.01 %

	Year To Date September 30, 2023			Year To Date September 30, 2022		
	Average Balance	Interest Income/ Expense	Yield/ Cost	Average Balance	Interest Income/ Expense	Yield/ Cost
Assets:						
Interest-bearing deposits	\$ 7,430,746	\$ 278,897	4.95 %	\$ 13,190,883	\$ 106,971	1.07 %
Federal funds sold	32,984	1,246	4.98	32,042	428	1.76
Resell agreements	86,317	3,391	5.18	6,461	78	1.59
Securities:						
Taxable	13,563,754	303,610	2.71	10,280,574	167,734	2.06
Tax-exempt	7,624,722	249,295	4.26	7,960,457	239,730	4.05
Total securities	21,188,476	552,905	3.24	18,241,031	407,464	2.90
Loans, net of unearned discounts	17,651,920	873,475	6.62	16,629,559	526,515	4.23
Total Earning Assets and Average Rate Earned	46,390,443	1,709,914	4.75	48,099,976	1,041,456	2.86
Cash and due from banks	631,338			643,654		
Allowance for credit losses on loans and securities	(232,085)			(244,763)		
Premises and equipment, net	1,141,719			1,053,887		
Accrued interest and other assets	1,917,405			1,723,257		
Total Assets	<u>\$ 49,848,820</u>			<u>\$ 51,276,011</u>		
Liabilities:						
Non-interest-bearing demand deposits	15,556,563			18,277,657		
Interest-bearing deposits:						
Savings and interest checking	10,903,147	31,254	0.38	12,176,393	3,775	0.04
Money market deposit accounts	11,655,293	229,804	2.64	12,650,089	51,334	0.54
Time accounts	3,408,515	95,976	3.76	1,403,238	7,078	0.67
Total interest-bearing deposits	25,966,955	357,034	1.84	26,229,720	62,187	0.32
Total deposits	41,523,518		1.15	44,507,377		0.19
Federal funds purchased	34,970	1,283	4.84	35,053	336	1.26
Repurchase agreements	3,819,406	99,960	3.45	1,917,622	9,837	0.68
Junior subordinated deferrable interest debentures	123,093	6,354	6.81	123,035	2,515	2.70
Subordinated notes	99,399	3,492	4.69	99,242	3,492	4.69
Total Interest-Bearing Funds and Average Rate Paid	30,043,823	468,123	2.08	28,404,672	78,367	0.37
Accrued interest and other liabilities	865,789			840,489		
Total Liabilities	46,466,175			47,522,818		
Shareholders' Equity	3,382,645			3,753,193		
Total Liabilities and Shareholders' Equity	<u>\$ 49,848,820</u>			<u>\$ 51,276,011</u>		
Net interest income		<u>\$ 1,241,791</u>			<u>\$ 963,089</u>	
Net interest spread			<u>2.67 %</u>			<u>2.49 %</u>
Net interest income to total average earning assets			<u>3.45 %</u>			<u>2.64 %</u>

The following table presents the changes in taxable-equivalent net interest income and identifies the changes due to differences in the average volume of earning assets and interest-bearing liabilities and the changes due to changes in the average interest rate on those assets and liabilities. The changes in net interest income due to changes in both average volume and average interest rate have been allocated to the average volume change or the average interest rate change in proportion to the absolute amounts of the change in each.

Three Months Ended September 30, 2023 vs. September 30, 2022			
	Increase (Decrease) Due to Change in		Total
	Rate	Volume	
Interest-bearing deposits	\$ 63,760	\$ (46,113)	\$ 17,647
Federal funds sold	211	(344)	(133)
Resell agreements	177	956	1,133
Securities:			
Taxable	19,328	16,236	35,564
Tax-exempt	3,321	(8,438)	(5,117)
Loans, net of unearned discounts	86,788	14,856	101,644
Total earning assets	173,585	(22,847)	150,738
Savings and interest checking	8,009	(411)	7,598
Money market deposit accounts	48,640	(7,211)	41,429
Time accounts	29,978	17,092	47,070
Federal funds purchased	201	(162)	39
Repurchase agreements	16,494	9,172	25,666
Junior subordinated deferrable interest debentures	1,100	1	1,101
Subordinated notes	—	—	—
Total interest-bearing liabilities	104,422	18,481	122,903
Net change	\$ 69,163	\$ (41,328)	\$ 27,835

Nine Months Ended September 30, 2023 vs. September 30, 2022			
	Increase (Decrease) Due to Change in		Total
	Rate	Volume	
Interest-bearing deposits	\$ 235,961	\$ (64,035)	\$ 171,926
Federal funds sold	806	12	818
Resell agreements	512	2,801	3,313
Securities:			
Taxable	62,104	73,772	135,876
Tax-exempt	12,119	(2,554)	9,565
Loans, net of unearned discounts	312,913	34,047	346,960
Total earning assets	624,415	44,043	668,458
Savings and interest checking	27,900	(421)	27,479
Money market deposit accounts	182,831	(4,361)	178,470
Time accounts	67,868	21,030	88,898
Federal funds purchased	948	(1)	947
Repurchase agreements	72,478	17,645	90,123
Junior subordinated deferrable interest debentures	3,838	1	3,839
Subordinated notes	—	—	—
Total interest-bearing liabilities	355,863	33,893	389,756
Net change	\$ 268,552	\$ 10,150	\$ 278,702

Taxable-equivalent net interest income for the three months ended September 30, 2023 increased \$27.8 million, or 7.3%, while taxable-equivalent net interest income for the nine months ended September 30, 2023 increased \$278.7 million, or 28.9%, compared to the same periods in 2022. The increases in taxable-equivalent net interest income during the three and nine months ended September 30, 2023 were primarily related to increases in the average yields on loans and, to a lesser extent, the average volumes of loans; increases in the average yields on interest-bearing deposits (primarily amounts held in an interest-bearing account at the Federal Reserve); increases in the average volumes of and average yields on taxable securities; and increases in the average taxable-equivalent yields on tax-exempt securities, among other things. The impact of these items was partly offset

by increases in the average costs of interest-bearing deposit accounts and repurchase agreements, among other things, combined with decreases in the average volumes of interest-bearing deposits (primarily amounts held in an interest-bearing account at the Federal Reserve) and increases in the average volumes of time deposit accounts and repurchase agreements, among other things.

As a result of the aforementioned fluctuations, the taxable-equivalent net interest margin increased 43 basis points from 3.01% during the three months ended September 30, 2022 to 3.44% during the three months ended September 30, 2023 while the taxable-equivalent net interest margin increased 81 basis points from 2.64% during the nine months ended September 30, 2022 to 3.45% during the nine months ended September 30, 2023.

The average volume of interest-earning assets for the three months ended September 30, 2023 decreased \$3.7 billion while the average volume of interest-earning assets for the nine months ended September 30, 2023 decreased \$1.7 billion compared to the same periods in 2022. The decrease in the average volume of interest-earning assets during the three months ended September 30, 2023 was primarily related to a \$6.0 billion decrease in average interest-bearing deposits (primarily amounts held in an interest-bearing account at the Federal Reserve) and a \$924.1 million decrease in average tax-exempt securities partly offset by a \$2.1 billion increase in average taxable securities and a \$1.1 billion increase in average loans. The average taxable-equivalent yield on interest-earning assets increased 149 basis points from 3.43% during the three months ended September 30, 2022 to 4.92% during the three months ended September 30, 2023. The decrease in the average volume of interest-earning assets during the nine months ended September 30, 2023 was primarily related to a \$5.8 billion decrease in average interest-bearing deposits (primarily amounts held in an interest-bearing account at the Federal Reserve) and a \$335.7 million decrease in average tax-exempt securities partly offset by a \$3.3 billion increase in average taxable securities and a \$1.0 billion increase in average loans. The average taxable-equivalent yield on interest-earning assets increased 189 basis points from 2.86% during the nine months ended September 30, 2022 to 4.75% during the nine months ended September 30, 2023. The average taxable-equivalent yield on interest-earning assets during the comparable periods was impacted by the aforementioned changes in market interest rates and changes in the volume and relative mix of interest-earning assets.

The average taxable-equivalent yield on loans increased 194 basis points from 4.89% during the three months ended September 30, 2022 to 6.83% during the three months ended September 30, 2023 while the average taxable-equivalent yield on loans increased 239 basis points from 4.23% during the nine months ended September 30, 2022 to 6.62% during the nine months ended September 30, 2023. The average taxable-equivalent yields on loans during the three and nine months ended September 30, 2023 were positively impacted by recent increases in market interest rates. The average volume of loans for the three months ended September 30, 2023 increased \$1.1 billion, or 6.8%, while the average volume of loans for the nine months ended September 30, 2023 increased \$1.0 billion, or 6.1%, compared to the same periods in 2022. Loans made up approximately 39.6% and 38.1% of average interest-earning assets during the three and nine months ended September 30, 2023, compared to 34.3% and 34.6% during the same respective periods in 2022.

The average taxable-equivalent yield on securities was 3.24% during both the three and nine months ended September 30, 2023, increasing 30 basis points from 2.94% during the three months ended September 30, 2022 and increasing 34 basis points from 2.90% during nine months ended September 30, 2022. The average yield on taxable securities was 2.76% during the three months ended September 30, 2023, increasing 56 basis points from 2.20% during the same period in 2022 while the average yield on taxable securities was 2.71% during the nine months ended September 30, 2023, increasing 65 basis points from 2.06% during the same period in 2022. The average taxable-equivalent yield on tax-exempt securities was 4.26% during both the three and nine months ended September 30, 2023, increasing 17 basis points from 4.09% during the three months ended September 30, 2022 and increasing 21 basis points from 4.05% during the nine months ended September 30, 2022.

Tax-exempt securities made up approximately 34.0% and 36.0% of total average securities during the three and nine months ended September 30, 2023, compared to 40.8% and 43.6% during the same periods in 2022. The average volume of total securities during the three months ended September 30, 2023 increased \$1.2 billion, or 6.0%, compared to the same period in 2022 while the average volume of total securities during the nine months ended September 30, 2023 increased \$2.9 billion, or 16.2%, compared to the same period in 2022. Securities made up approximately 45.3% of average interest-earning assets during the three months ended September 30, 2023 compared to 39.5% during the same period in 2022 while securities made up approximately 45.6% of average interest-earning assets during the nine months ended September 30, 2023 compared to 37.9% during the same period in 2022. The increases during the three and nine months ended September 30, 2023 were primarily related to the investment of available funds (primarily from the reinvestment of amounts held in an interest-bearing account at the Federal Reserve) into taxable securities.

Average interest-bearing deposits (primarily amounts held in an interest-bearing account at the Federal Reserve) for the three months ended September 30, 2023 decreased \$6.0 billion, or 47.2%, compared to the same period in 2022, while average interest-bearing deposits (primarily amounts held in an interest-bearing account at the Federal Reserve) for the nine months ended September 30, 2023 decreased \$5.8 billion, or 43.7%, compared to the same period in 2022. Interest-bearing deposits (primarily amounts held in an interest-bearing account at the Federal Reserve) made up approximately 14.9% of average interest-earning assets during the three months ended September 30, 2023 compared to 26.0% during the same period in 2022 while interest-bearing deposits (primarily amounts held in an interest-bearing account at the Federal Reserve) made up approximately 16.0% of average interest-earning assets during the nine months ended September 30, 2023 compared to 27.4% during the same period in 2022. The decreases during the three and nine months ended September 30, 2023 were primarily related to the reinvestment of amounts held in an interest-bearing account at the Federal Reserve into taxable securities, and to a lesser extent, loans combined with decreases in average funding provided by customer deposits (primarily non-interest-bearing). The average yield on interest-bearing deposits (primarily amounts held in an interest-bearing account at the Federal Reserve) was 5.33% and 4.95% during the three and nine months ended September 30, 2023, compared to 2.27% and 1.07% during the same respective periods in 2022. The average yields on interest-bearing deposits during the three and nine months ended September 30, 2023 were impacted by higher interest rates paid on reserves held at the Federal Reserve, compared to the same respective periods in 2022.

The average rate paid on interest-bearing liabilities was 2.33% during the three months ended September 30, 2023, increasing 162 basis points from 0.71% during the same period in 2022 while the average rate paid on interest-bearing liabilities was 2.08% during the nine months ended September 30, 2023, increasing 171 basis points from 0.37% during the same period in 2022. Average deposits decreased \$5.0 billion, or 10.9%, during the three months ended September 30, 2023 compared to the same period in 2022 and included a \$3.7 billion decrease in average non-interest-bearing deposits and a \$1.3 billion decrease in average interest-bearing deposits. Average deposits decreased \$3.0 billion, or 6.7%, during the nine months ended September 30, 2023 compared to the same period in 2022 and included a \$2.7 billion decrease in average non-interest-bearing deposits and a \$262.8 million decrease in average interest-bearing deposits. The ratio of average interest-bearing deposits to total average deposits was 63.7% and 62.5% during the three and nine months ended September 30, 2023 compared to 59.6% and 58.9% during the same respective periods in 2022. The average cost of deposits is primarily impacted by changes in market interest rates as well as changes in the volume and relative mix of interest-bearing deposits. The average cost of interest-bearing deposits and total deposits was 2.12% and 1.35%, respectively, during the three months ended September 30, 2023 compared to 0.62% and 0.37%, respectively, during the same period in 2022. The average cost of interest-bearing deposits and total deposits was 1.84% and 1.15%, respectively, during the nine months ended September 30, 2023 compared to 0.32% and 0.19%, respectively, during the same period in 2022. The average cost of deposits during the comparable periods was impacted by increases in the interest rates we pay on our interest-bearing deposit products as a result of the aforementioned increases in market interest rates.

Our net interest spread, which represents the difference between the average rate earned on earning assets and the average rate paid on interest-bearing liabilities, was 2.59% and 2.67% during the three and nine months ended September 30, 2023 compared to 2.72% and 2.49% during the same respective periods in 2022. The net interest spread, as well as the net interest margin, will be impacted by future changes in short-term and long-term interest rate levels, as well as the impact from the competitive environment, including from new financial technology competitors, and the availability of alternative investment options. A discussion of the effects of changing interest rates on net interest income is set forth in Item 3. Quantitative and Qualitative Disclosures About Market Risk included elsewhere in this report.

Our hedging policies permit the use of various derivative financial instruments, including interest rate swaps, swaptions, caps and floors, to manage exposure to changes in interest rates. Details of our derivatives and hedging activities are set forth in Note 7 - Derivative Financial Instruments in the accompanying notes to consolidated financial statements included elsewhere in this report. Information regarding the impact of fluctuations in interest rates on our derivative financial instruments is set forth in Item 3. Quantitative and Qualitative Disclosures About Market Risk included elsewhere in this report.

Credit Loss Expense

Credit loss expense is determined by management as the amount to be added to the allowance for credit loss accounts for various types of financial instruments including loans, securities and off-balance-sheet credit exposures after net charge-offs have been deducted to bring the allowances to a level which, in management's best estimate, is necessary to absorb expected credit losses over the lives of the respective financial instruments. The components of credit loss expense were as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
Credit loss expense (benefit) related to:				
Loans	\$ 13,608	\$ (2,463)	\$ 38,216	\$ (2,395)
Off-balance-sheet credit exposures	(2,466)	2,463	(8,178)	2,395
Securities held to maturity	43	—	152	—
Total	<u>\$ 11,185</u>	<u>\$ —</u>	<u>\$ 30,190</u>	<u>\$ —</u>

See the section captioned "Allowance for Credit Losses" elsewhere in this discussion for further analysis of credit loss expense related to loans and off-balance-sheet credit exposures.

Non-Interest Income

Total non-interest income for the three and nine months ended September 30, 2023 increased \$6.2 million, or 6.2%, and increased \$15.7 million, or 5.2%, respectively, compared to the same periods in 2022. Changes in the various components of non-interest income are discussed in more detail below.

Trust and Investment Management Fees. Trust and investment management fees decreased \$936 thousand, or 2.4%, for the three months ended September 30, 2023 and decreased \$1.8 million, or 1.6%, for the nine months ended September 30, 2023, compared to the same respective periods in 2022. Investment management fees are the most significant component of trust and investment management fees, making up approximately 79.5% and 78.0% of total trust and investment management fees for the first nine months of 2023 and 2022, respectively. The decrease in trust and investment management fees during the three months ended September 30, 2023 was primarily due to a decrease in oil and gas fees (down \$2.9 million) partly offset by an increase in investment management fees (up \$1.9 million). The decrease in trust and investment management fees during the nine months ended September 30, 2023 was primarily due to a decrease in oil and gas fees (down \$4.0 million) partly offset by increases in real estate fees (up \$807 thousand), estate fees (up \$663 thousand), and investment management fees (up \$340 thousand). The decreases in oil and gas fees during the three and nine months ended September 30, 2023 were primarily related to lower average market prices in 2023 relative to 2022. The increases in real estate fees and estate fees during the nine months ended September 30, 2023 were primarily related to increases in transaction volumes. Investment management fees are generally based on the market value of assets within an account and are thus impacted by volatility in the equity and bond markets. The increase in investment management fees during the three and nine months ended September 30, 2023 was primarily related to an increase in the average value of assets maintained in accounts, despite a slight decrease in the number of accounts. The increase in the average value of assets was partly related to higher equity valuations during the second and third quarters of 2023 relative to the same periods in 2022.

At September 30, 2023, trust assets, including both managed assets and custody assets, were primarily composed of equity securities (41.1% of assets), fixed income securities (33.4% of assets), alternative investments (10.3% of assets) and cash equivalents (8.7% of assets). The estimated fair value of these assets was \$44.5 billion (including managed assets of \$22.5 billion and custody assets of \$22.0 billion) at September 30, 2023, compared to \$42.9 billion (including managed assets of \$21.4 billion and custody assets of \$21.5 billion) at December 31, 2022 and \$40.1 billion (including managed assets of \$19.3 billion and custody assets of \$20.8 billion) at September 30, 2022.

Service Charges on Deposit Accounts. Service charges on deposit accounts for the three and nine months ended September 30, 2023 increased \$643 thousand, or 2.8%, and decreased \$601 thousand, or 0.9%, respectively, compared to the same periods in 2022. The increase during the three months ended September 30, 2023 was primarily related to increases in overdraft charges on consumer and commercial accounts (up \$1.1 million and \$207 thousand, respectively) and consumer service charges (up \$338 thousand), partly offset by a decrease in commercial service charges (down \$994 thousand). The decrease during the nine months ended September 30, 2023 was primarily related to a decrease in commercial service charges (down \$6.2 million), partly offset by increases in overdraft charges on consumer and commercial accounts (up \$3.2 million and \$1.4 million, respectively) and consumer service charges (up \$962 thousand). The decreases in commercial service charges during the three and nine months ended September 30, 2023 primarily resulted from a higher average earnings credit rate applied to deposits maintained by treasury management customers. Because average market interest rates were higher during

2023 compared to 2022, deposit balances were more valuable and yielded a higher average earnings credit rate. As a result, customers paid for less of their services through fees rather than with earnings credits applied to their deposit balances. Overdraft charges totaled \$11.0 million (\$8.3 million consumer and \$2.6 million commercial) during the three months ended September 30, 2023 compared to \$9.7 million (\$7.2 million consumer and \$2.4 million commercial) during the same period in 2022. Overdraft charges totaled \$32.5 million (\$24.6 million consumer and \$7.9 million commercial) during the nine months ended September 30, 2023 compared to \$27.9 million (\$21.4 million consumer and \$6.5 million commercial) during the same period in 2022. The increases in overdraft charges during the three and nine months ended September 30, 2023 were impacted by increases in the volumes of fee assessed overdrafts relative to 2022, in part due to growth in the number of accounts.

Insurance Commissions and Fees. Insurance commissions and fees for the three and nine months ended September 30, 2023 increased \$484 thousand, or 3.7%, and increased \$4.0 million, or 9.6%, respectively, compared to the same periods in 2022. The increase during the three months ended September 30, 2023 was primarily the result of an increase in commission income (up \$552 thousand) partly offset by a decrease in contingent income (down \$68 thousand). The increase during the nine months ended September 30, 2023 was primarily the result of increases in commission income (up \$2.8 million) and contingent income (up \$1.2 million). The increase in commission income during the three months ended September 30, 2023 was related to an increase in commercial lines property and casualty commissions and, to a lesser extent, an increase in personal lines property and casualty commissions, partly offset by a decrease in life insurance commissions and, to a lesser extent, a decrease in benefit plan commissions. The increase in commission income during the nine months ended September 30, 2023 was related to increases in commercial and personal lines property and casualty commissions, life insurance commissions and benefit plan commissions. The increases in commercial and personal lines property and casualty commissions during the three and nine months ended September 30, 2023 and benefit plan commissions during the nine months ended September 30, 2023 were primarily related to increases in the underlying exposure bases and increases in rates. The fluctuations in life insurance commissions during the three and nine months ended September 30, 2023 were primarily due to variations in business volumes.

Contingent income totaled \$210 thousand and \$4.5 million during the three and nine months ended September 30, 2023, respectively, compared to \$278 thousand and \$3.3 million during the same respective periods in 2022. Contingent income primarily consists of amounts received from various property and casualty insurance carriers related to portfolio growth and the loss performance of insurance policies previously placed. These performance related contingent payments are seasonal in nature and are mostly received during the first quarter of each year. This performance related contingent income totaled \$3.2 million and \$1.9 million during the nine months ended September 30, 2023 and 2022, respectively. The increase in performance related contingent income was primarily related to growth within the portfolio and improvement in the loss performance of insurance policies previously placed. Performance related contingent income in 2022 was impacted by a severe weather event in Texas during 2021 that resulted in significant property and casualty claims and losses. Contingent income also includes amounts received from various benefit plan insurance companies related to the volume of business generated and/or the subsequent retention of such business. This benefit plan related contingent income totaled \$135 thousand and \$1.2 million during the three and nine months ended September 30, 2023, respectively, compared to \$232 thousand and \$1.4 million during the same respective periods in 2022.

Interchange and Card Transaction Fees. Interchange fees, or “swipe” fees, are charges that merchants pay to us and other card-issuing banks for processing electronic payment transactions. Interchange and card transaction fees consist of income from debit and credit card usage, point of sale income from PIN-based card transactions and ATM service fees. Interchange and card transaction fees are reported net of related network costs.

Net interchange and card transaction fees for the three and nine months ended September 30, 2023 increased \$58 thousand, or 1.3%, and increased \$1.1 million, or 7.7%, respectively, compared to the same periods in 2022 primarily due to increases in transaction volumes partly offset by an increase in network costs. A comparison of gross and net interchange and card transaction fees for the reported periods is presented in the table below.

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
Income from card transactions	\$ 9,041	\$ 8,292	\$ 27,248	\$ 24,081
ATM service fees	902	871	2,658	2,502
Gross interchange and card transaction fees	9,943	9,163	29,906	26,583
Network costs	5,271	4,549	15,095	12,832
Net interchange and card transaction fees	\$ 4,672	\$ 4,614	\$ 14,811	\$ 13,751

Federal Reserve rules applicable to financial institutions that have assets of \$10 billion or more provide that the maximum permissible interchange fee for an electronic debit transaction is the sum of 21 cents per transaction and 5 basis points multiplied by the value of the transaction. An upward adjustment of no more than 1 cent to an issuer's debit card interchange fee

is allowed if the card issuer develops and implements policies and procedures reasonably designed to achieve certain fraud-prevention standards. The Federal Reserve also has rules governing routing and exclusivity that require issuers to offer two unaffiliated networks for routing transactions on each debit or prepaid product.

Other Charges, Commissions, and Fees. Other charges, commissions, and fees for the three months ended September 30, 2023 increased \$2.0 million, or 18.3%, compared to the same period in 2022. The increase was primarily related to increases in other service charges (up \$711 thousand), capital markets advisory fees (up \$428 thousand), letter of credit fees (up \$393 thousand), merchant services rebates/bonuses (up \$269 thousand), and income from the placement of money market accounts (up \$219 thousand), among other things. Other charges, commissions, and fees for the nine months ended September 30, 2023 increased \$6.3 million, or 20.6%, compared to the same period in 2022. The increase was primarily related to increases in income from the placement of money market accounts (up \$2.2 million), other service charges (up \$2.0 million), capital markets advisory fees (up \$1.3 million), letter of credit fees (up \$873 thousand), commitment fees on unused lines of credit (up \$839 thousand), and merchant services rebates/bonuses (up \$600 thousand), among other things, partly offset by a decrease in income from the sale of mutual funds (down \$1.4 million), among other things.

Net Gain/Loss on Securities Transactions. During the nine months ended September 30, 2023, we sold certain available-for-sale securities with amortized costs totaling \$1.9 billion and realized a net gain of \$66 thousand. Market conditions provided us an opportunity to sell certain lower-yielding securities. The proceeds from these sales enhanced our current liquidity position and will provide us the flexibility to be more opportunistic with the reinvestment of these funds in the future. There were no sales of securities during 2022.

Other Non-Interest Income. Other non-interest income for the three months ended September 30, 2023 increased \$3.9 million, or 41.1%, compared to the same period in 2022. The increase was primarily related to increases in income from customer derivative and foreign exchange transactions (up \$2.6 million) and public finance underwriting fees (up \$751 thousand), among other things.

Other non-interest income for the nine months ended September 30, 2023 increased \$6.7 million, or 23.2%, compared to the same period in 2022. The increase was partly related to increases in income from customer derivative and foreign exchange transactions (up \$3.0 million), sundry and other miscellaneous income (up \$1.2 million), income from customer securities trading transactions (up \$685 thousand), earnings on the cash surrender value of life insurance (up \$603 thousand), and gains on the sale of foreclosed and other assets (up \$327 thousand), among other things. The increases in income from customer derivative and securities trading transactions and income from customer foreign exchange transactions were primarily related to increases in transaction volumes. Sundry income during the nine months ended September 30, 2023 included \$1.5 million related to a distributions received from a Small Business Investment Company ("SBIC") fund investment, \$1.3 million related to the recovery of prior write-offs, \$950 thousand related to merchant services performance and revenue milestone bonuses, \$839 thousand related to a volume bonus received from Frost Brokerage Services' clearing broker, and \$575 thousand related to a partnership interest, among other things, while sundry income during the nine months ended September 30, 2022 included \$2.2 million in card related incentives/rebates, \$1.2 million related to the recovery of prior write-offs, and \$458 thousand related to a contract fee, among other things. The increase in earnings on the cash surrender value of life insurance was related to an increase in market interest rates. The increase in gains on the sale of foreclosed and other assets was primarily related to the sale of foreclosed real estate property.

Non-Interest Expense

Total non-interest expense for the three and nine months ended September 30, 2023 increased \$35.4 million, or 13.7%, and increased \$120.5 million, or 16.2%, respectively, compared to the same periods in 2022. Changes in the various components of non-interest expense are discussed below.

Salaries and Wages. Salaries and wages for the three and nine months ended September 30, 2023 increased \$10.4 million, or 8.2%, and increased \$45.7 million, or 12.9%, respectively, compared to the same periods in 2022. The increases in salaries and wages were primarily related to increases in salaries due to annual merit and market increases and increases in the number of employees. The increases in the number of employees were partly related to our investments in organic expansion in the Houston, Dallas, and Austin markets as well as the gradual rollout of our mortgage loan product offering. Salaries and wages during the nine months ended September 30, 2023 was also impacted, to a lesser extent, by an increase in stock-based compensation. The aforementioned increases were partly offset by decreases in incentive compensation during the three and nine months ended September 30, 2023. We are experiencing a competitive labor market which has resulted in and could continue to result in an increase in our staffing costs.

Employee Benefits. Employee benefits expense for the three and nine months ended September 30, 2023 increased \$4.8 million, or 22.4%, and increased \$20.6 million, or 30.9%, respectively, compared to the same periods in 2022. The increases were primarily related to increases in 401(k) plan expense (up \$321 thousand and \$5.9 million during the three and nine months

ended September 30, 2023, respectively), medical benefits expense (up \$2.0 million and \$5.6 million during the three and nine months ended September 30, 2023, respectively), and payroll taxes (up \$850 thousand and \$3.7 million during the three and nine months ended September 30, 2023, respectively), and decreases in the net periodic benefit related to our defined benefit retirement plan (down \$1.6 million and \$4.9 million, respectively), among other things.

Our defined benefit retirement and restoration plans were frozen in 2001 which has helped to reduce the volatility in retirement plan expense. We nonetheless still have funding obligations related to these plans and could recognize expense related to these plans in future years, which would be dependent on the return earned on plan assets, the level of interest rates and employee turnover. See Note 11 - Defined Benefit Plans for additional information related to our net periodic pension benefit/cost.

Net Occupancy. Net occupancy expense for the three and nine months ended September 30, 2023 increased \$3.4 million, or 12.3%, and increased \$9.7 million, or 11.6%, respectively, compared to the same periods in 2022. The increases during the three and nine months ended September 30, 2023 were primarily related to increases in depreciation on buildings and leasehold improvements (together up \$1.3 million and \$3.0 million, respectively), lease expense (up \$383 thousand and \$2.8 million, respectively), utilities expense (up \$381 thousand and \$1.3 million, respectively), and repairs/maintenance/service contracts expense (up \$867 thousand and \$1.2 million, respectively), among other things. The increases in the aforementioned components of net occupancy expense were impacted, in part, by our expansion within the Houston and Dallas market areas.

Technology, Furniture, and Equipment. Technology, furniture, and equipment expense for the three and nine months ended September 30, 2023 increased \$4.5 million, or 14.6%, and increased \$10.9 million, or 12.2%, respectively, compared to the same periods in 2022. The increases during the three and nine months ended September 30, 2023 were primarily related to increases in cloud services expense (up \$3.3 million and \$6.9 million, respectively) and service contracts expense (up \$1.3 million and \$3.2 million, respectively), among other things.

Deposit Insurance. Deposit insurance expense totaled \$6.0 million and \$18.5 million for the three and nine months ended September 30, 2023, respectively, compared to \$4.3 million and \$11.6 million for the three and nine months ended September 30, 2022, respectively. The increases during the three and nine months ended September 30, 2023 were primarily related to an increase in the assessment rate. In October 2022, the Federal Deposit Insurance Corporation ("FDIC") adopted a final rule to increase the initial base deposit insurance assessment rate schedules uniformly by 2 basis points beginning with the first quarterly assessment period of 2023.

In May 2023, the FDIC issued a Notice of Proposed Rulemaking proposing an emergency special assessment to recover losses to the Deposit Insurance Fund ("DIF") incurred as a result of recent bank failures and the FDIC's use of the systemic risk exception to cover certain deposits that were otherwise uninsured. Under the proposal, the special assessment would be based on estimated uninsured deposits as of December 31, 2022 (excluding the first \$5.0 billion) and assessed at a rate of 25 basis points payable over eight quarters beginning in the first quarter of 2024. If this rule is made final as it is proposed, we expect that we will incur a special assessment of approximately \$47.9 million (\$37.9 million after tax). Based on the proposed rule, such amount will be fully expensed in the period the rule is made final, which is currently expected to be later in 2023. Nonetheless, the proposal could be changed and the timing of accounting recognition is still under consideration. Under the proposed rule, the estimated loss pursuant to the systemic risk determination would be periodically adjusted, and the FDIC would retain the ability to cease collection early, extend the special assessment collection period and impose a final shortfall special assessment on a one-time basis. The extent to which any such future assessment will impact our future deposit insurance expense is currently uncertain.

Other Non-Interest Expense. Other non-interest expense for the three and nine months ended September 30, 2023 increased \$10.4 million, or 22.8%, and increased \$26.6 million, or 19.7%, respectively, compared to the same periods in 2022. The increase during the three months ended September 30, 2023 included increases in advertising/promotions expense (up \$3.6 million); professional services expense (up \$3.5 million), which was primarily related to information technology services; fraud losses (up \$1.2 million); and travel, meals, and entertainment expense (up \$706 thousand); among other things. These items were partly offset by a decrease in sundry and other miscellaneous expenses (down \$789 thousand), among other things. Sundry and other miscellaneous expenses during the three months ended September 30, 2022 included \$1.6 million related to an operational loss and \$225 thousand related to the write-off of certain assets while sundry and other miscellaneous expenses during the three months ended September 30, 2023 included \$465 thousand related to an operational loss. The increase during the nine months ended September 30, 2023 included increases in professional services expense (up \$8.6 million), which was primarily related to information technology services; advertising/promotions expense (up \$7.7 million); travel, meals, and entertainment (up \$3.0 million); fraud losses (up \$1.6 million); check card expense (up \$1.6 million); business development expense (up \$1.5 million); and stationery, printing and supplies expense (up \$941 thousand), among other things.

Results of Segment Operations

We are managed under a matrix organizational structure whereby our two primary operating segments, Banking and Frost Wealth Advisors, overlap a regional reporting structure. A third operating segment, Non-Banks, is for the most part the parent holding company, as well as certain other insignificant non-bank subsidiaries of the parent that, for the most part, have little or no activity. A description of each segment, the methodologies used to measure segment financial performance and summarized operating results by segment are described in Note 14 - Operating Segments in the accompanying notes to consolidated financial statements included elsewhere in this report. Segment operating results are discussed in more detail below.

Banking

Net income for the three and nine months ended September 30, 2023 decreased \$10.4 million, or 6.4%, and increased \$113.4 million, or 30.8%, respectively, compared to the same periods in 2022. The decrease during the three months ended September 30, 2023 was primarily the result of a \$31.6 million increase in non-interest expense, an \$11.2 million increase in credit loss expense, and a \$4.5 million increase in income tax expense partly offset by a \$30.3 million increase in net interest income and a \$6.5 million increase in non-interest income. The increase during the nine months ended September 30, 2023 was primarily the result of a \$276.9 million increase in net interest income and a \$13.9 million increase in non-interest income partly offset by a \$110.8 million increase in non-interest expense, a \$36.4 million increase in income tax expense and a \$30.2 million increase in credit loss expense.

Net interest income for the three and nine months ended September 30, 2023 increased \$30.3 million, or 8.5%, and \$276.9 million, or 30.9%, respectively, compared to the same periods in 2022. The increases during the three and nine months ended September 30, 2023 were primarily related to increases in the average yields on loans and, to a lesser extent, the average volumes of loans; increases in the average yields on interest-bearing deposits (primarily amounts held in an interest-bearing account at the Federal Reserve); increases in the average volumes of and average yields on taxable securities; and increases in the average taxable-equivalent yields on tax-exempt securities, among other things. The impact of these items was partly offset by increases in the average costs of interest-bearing deposit accounts and repurchase agreements, among other things, combined with decreases in the average volumes of interest-bearing deposits (primarily amounts held in an interest-bearing account at the Federal Reserve) and increases in the average volumes of time deposit accounts and repurchase agreements, among other things. See the analysis of net interest income included in the section captioned "Net Interest Income" included elsewhere in this discussion.

Credit loss expense for the three and nine months ended September 30, 2023 totaled \$11.2 million and \$30.2 million, respectively. There was no credit loss expense during the three and nine months ended September 30, 2022. See the sections captioned "Credit Loss Expense" and "Allowance for Credit Losses" elsewhere in this discussion for further analysis of credit loss expense related to loans and off-balance-sheet commitments.

Non-interest income for the three months ended September 30, 2023 increased \$6.5 million, or 11.7%, compared to the same period in 2022, while non-interest income for the nine months ended September 30, 2023 increased \$13.9 million, or 8.2%, compared to the same period in 2022. The increase during the three months ended September 30, 2023 was primarily due to increases in other non-interest income; other charges, commissions, and fees; service charges on deposit accounts and insurance commissions, and fees. The increase during the nine months ended September 30, 2023 was primarily related to increases in other charges, commissions, and fees; other non-interest income; insurance commissions and fees and interchange and card transaction fees. The increases in other charges, commissions, and fees during the three and nine months ended September 30, 2023 included increases in capital markets advisory fees, letter of credit fees, and merchant services rebates/bonuses, among other things, and for the nine months ended September 30, 2023, an increase in commitment fees on unused lines of credit. The increase in other non-interest income during the three months ended September 30, 2023 was primarily related to increases in income from customer derivative and foreign exchange transactions and public finance underwriting fees, among other things. The increase in other non-interest income during the nine months ended September 30, 2023 was partly related to increases in income from customer derivative and foreign exchange transactions, sundry and other miscellaneous income, earnings on the cash surrender value of life insurance, and gains on the sale of foreclosed and other assets, among other things. The increase in insurance commissions and fees during the three months ended September 30, 2023 was primarily the result of an increase in commission income partly offset by a decrease in contingent income, while the increase during the nine months ended September 30, 2023 was primarily the result of increases in both commission income and contingent income. These changes are further discussed below in relation to Frost Insurance Agency. The increase in interchange and card transaction fees during the nine months ended September 30, 2023 was primarily due to an increase in transaction volumes partly offset by an increase in network costs. The increase in service charges on deposit accounts during the three months ended September 30, 2023 was primarily related to increases in overdraft charges on consumer and commercial accounts and consumer service charges, partly offset by a decrease in commercial service charges. See the analysis of these categories of non-interest income included in the section captioned "Non-Interest Income" included elsewhere in this discussion.

Non-interest expense for three and nine months ended September 30, 2023 increased \$31.6 million, or 14.1%, and \$110.8 million, or 17.3%, compared to the same respective periods in 2022. The increases during the three and nine months ended September 30, 2023 were primarily due to increases in salaries and wages; other non-interest expense; employee benefit expense; technology, furniture, and equipment expense; net occupancy expense and deposit insurance. The increases in salaries and wages during the three and nine months ended September 30, 2023, were primarily related to increases in salaries due to annual merit and market increases and increases in the number of employees. The increase in the number of employees was partly related to our investments in organic expansion in the Houston, Dallas, and Austin markets as well as the gradual rollout of our mortgage loan product offering. Salaries and wages during the nine months ended September 30, 2023 was also impacted, to a lesser extent, by an increase in stock-based compensation. The aforementioned increases were partly offset by decreases in incentive compensation during the three and nine months ended September 30, 2023. The increases in employee benefits expense during the three and nine months ended September 30, 2023 were primarily related to increases in 401(k) plan expense, medical benefits expense, and payroll taxes, and decreases in the net periodic benefit related to our defined benefit retirement plan, among other things. The increases in other non-interest expense during the three and nine months ended September 30, 2023 were primarily related to increases in professional services expense; advertising/promotions expense; travel, meals, and entertainment; check card expense; business development expense and stationery, printing and supplies expense, among other things. The increases in technology, furniture, and equipment expense during the three and nine months ended September 30, 2023 were primarily related to increases in cloud services expense and service contracts expense, among other things. The increases in net occupancy during the three and nine months ended September 30, 2023 were primarily related to increases in depreciation on buildings and leasehold improvements, lease expense, utilities expense, and repairs/maintenance/service contracts expense, among other things. The increases in the aforementioned components of net occupancy expense were impacted, in part, by our expansion within the Houston and Dallas market areas. The increases in deposit insurance during the three and nine months ended September 30, 2023 were primarily related to an increase in the assessment rate. See the analysis of these categories of non-interest expense included in the section captioned “Non-Interest Expense” included elsewhere in this discussion.

Frost Insurance Agency, which is included in the Banking operating segment, had gross commission revenues of \$13.6 million and \$45.6 million during the three and nine months ended September 30, 2023, respectively, compared to \$13.2 million and \$41.6 million during the same respective periods in 2022. The increase during the three months ended September 30, 2023 was primarily related to an increase in commission income while the increase during the nine months ended September 30, 2023 was primarily due to increases in both commission and contingent income. The increases in commission income during the three months ended September 30, 2023 was related to an increase in commercial lines property and casualty commissions and, to a lesser extent, an increase in personal lines property and casualty commissions, partly offset by a decrease in life insurance commissions and, to a lesser extent, a decrease in benefit plan commissions. The increase in commission income during the nine months ended September 30, 2023 was related to increases in commercial and personal lines property and casualty commissions, life insurance commissions and benefit plan commissions. The increases in commercial and personal lines property and casualty commissions during the three and nine months ended September 30, 2023 and benefit plan commissions during the nine months ended September 30, 2023 were primarily related to increases in the underlying exposure bases and increases in rates. The fluctuations in life insurance commissions during the three and nine months ended September 30, 2023 were primarily due to variations in business volumes. The increase in contingent income during the nine months ended September 30, 2023 was primarily related to an increase in performance related contingent payments due to growth within the portfolio and improvement in the loss performance of insurance policies previously placed. See the analysis of insurance commissions, and fees included in the section captioned “Non-Interest Income” included elsewhere in this discussion.

Frost Wealth Advisors

Net income for the three and nine months ended September 30, 2023 decreased \$2.7 million, or 28.7%, and decreased \$3.9 million, or 13.7%, respectively, compared to the same periods in 2022. The decrease during the three months ended September 30, 2023 was primarily the result of a \$3.8 million increase in non-interest expense and a \$360 thousand decrease in non-interest income partly offset by a \$730 thousand decrease in income tax expense and a \$661 thousand increase in net interest income. The decrease during the nine months ended September 30, 2023 was primarily the result of a \$9.2 million increase in non-interest expense partly offset by a \$2.7 million increase in net interest income, a \$1.5 million increase in non-interest income and a \$1.0 million decrease in income tax expense.

Net interest income for the three and nine months ended September 30, 2023 increased \$661 thousand, or 48.7%, and increased \$2.7 million, or 91.1%, respectively, compared to the same periods in 2022. The increases during the three and nine months ended September 30, 2023 were primarily due to increases in the average funds transfer prices allocated to funds provided by Frost Wealth Advisors. See the analysis of net interest income included in the section captioned “Net Interest Income” included elsewhere in this discussion.

Non-interest income for the three and nine months ended September 30, 2023 decreased \$360.0 thousand, or 0.8%, and increased \$1.5 million, or 1.2%, respectively, compared to the same periods in 2022. The decrease during the three months ended September 30, 2023 was primarily due to a decrease in trust and investment management fees partly offset by increases in other non-interest income and other charges, commissions, and fees. The increase during the nine months ended September 30, 2023 was primarily due to increases in other non-interest income and other charges, commissions, and fees partly offset by a decrease in trust and investment management fees. Trust and investment management fee income is the most significant income component for Frost Wealth Advisors. Investment management fees are the most significant component of trust and investment management fees, making up approximately 79.5% of total trust and investment management fees for the first nine months of 2023. The decrease in trust and investment management fees during the three months ended September 30, 2023 was primarily due to a decrease in oil and gas fees partly offset by an increase in investment management fees. The decrease in trust and investment management fees during the nine months ended September 30, 2023 was primarily due to a decrease in oil and gas fees partly offset by increases in real estate fees, estate fees, and investment management fees. The decreases in oil and gas fees during the three and nine months ended September 30, 2023 were primarily related to lower average market prices in 2023 relative to 2022. The increases in real estate fees and estate fees during the nine months ended September 30, 2023 were primarily related to increases in transaction volumes. The increase in investment management fees during the three and nine months ended September 30, 2023 was primarily related to an increase in the average value of assets maintained in accounts, despite a slight decrease in the number of accounts. The increase in the average value of assets was partly related to higher equity valuations during the second and third quarters of 2023 relative to the same periods in 2022. The increases in other non-interest income during the three and nine months ended September 30, 2023 were primarily related to increases in income from customer securities trading transactions, and for the nine months ended September 30, 2023, an increase in sundry income, primarily related to a volume bonus received from Frost Brokerage Services' clearing broker. The increases in other charges, commissions, and fees during the three and nine months ended September 30, 2023 were primarily related to increases in income from the placement of money market accounts, among other things, partly offset by decreases in income from the sale of mutual funds, among other things. See the analysis of trust and investment management fees, other non-interest income and other charges, commissions, and fees included in the section captioned "Non-Interest Income" included elsewhere in this discussion.

Non-interest expense for the three and nine months ended September 30, 2023 increased \$3.8 million, or 11.3%, and increased \$9.2 million, or 9.4%, respectively, compared to the same periods in 2022. The increases during the three and nine months ended September 30, 2023 were primarily due to increases in salaries and wages, other non-interest expense, employee benefits expense and net occupancy expense. The increases in salaries and wages were primarily due to an increase in salaries, due to annual merit and market increases, as well as increases in commission expense, among other things. The increase in other non-interest expense during the three months ended September 30, 2023 was primarily related increases in sundry and other miscellaneous expenses and professional service expense, among other things. The increase in other non-interest expense during the nine months ended September 30, 2023 was primarily related to an increase in the corporate overhead expense allocation and an increase in professional service expense, among other things. The increases in employee benefits during the three and nine months ended September 30, 2023 were primarily related to increases in medical benefits expense, payroll taxes, defined benefit plan expense and 401(k) plan expense, among other things. The increases in net occupancy expense during the three and nine months ended September 30, 2023 were primarily related to increases in lease expense.

Non-Banks

The Non-Banks operating segment had net losses of \$3.6 million and \$10.3 million during the three and nine months ended September 30, 2023, respectively, compared to net loss of \$2.6 million and \$8.2 million during the same respective periods in 2022. The increases in net losses during the three and nine months ended September 30, 2023 were primarily due to increases in net interest expense due to an increase in the average rates paid on our long-term borrowings.

Income Taxes

During the three months ended September 30, 2023, we recognized income tax expense of \$31.3 million, for an effective tax rate of 16.8%, compared to \$27.7 million, for an effective tax rate of 14.0%, for the same period in 2022. During the nine months ended September 30, 2023, we recognized income tax expense of \$96.3 million, for an effective tax rate of 16.3%, compared to \$61.0 million, for an effective tax rate of 13.6%, for the same period in 2022. The effective income tax rates differed from the U.S. statutory federal income tax rate of 21% during 2023 and 2022 primarily due to the effect of tax-exempt income from securities, loans and life insurance policies and the income tax effects associated with stock-based compensation, among other things, and their relative proportion to total pre-tax net income. The increases in the effective tax rates during 2023 was primarily related to an increase in projected pre-tax net income and, to a lesser extent, increases in disallowed deposit interest expense and deposit insurance premiums and a decrease in discrete tax benefits associated with stock-based compensation, among other things.

Average Balance Sheet

Average assets totaled \$49.8 billion for the nine months ended September 30, 2023 representing a decrease of \$1.4 billion, or 2.8%, compared to average assets for the same period in 2022. Earning assets decreased \$1.7 billion, or 3.6%, during the nine months ended September 30, 2023 compared to the same period in 2022. The decrease in earning assets was primarily related to a \$5.8 billion decrease in average interest-bearing deposits (primarily amounts held in an interest-bearing account at the Federal Reserve) and a \$335.7 million decrease in tax-exempt securities partly offset by a \$3.3 billion increase in average taxable securities and a \$1.0 billion increase in average loans. Average deposits decreased \$3.0 billion, or 6.7%, during nine months ended September 30, 2023 compared to the same period in 2022. The decrease included a \$2.7 billion decrease in non-interest-bearing deposits and a \$262.8 million decrease in interest-bearing deposits. Average non-interest-bearing deposits made up 37.5% and 41.1% of average total deposits during the nine months ended September 30, 2023 and 2022, respectively.

Loans

Details of our loan portfolio are presented in Note 3 - Loans in the accompanying notes to consolidated financial statements included elsewhere in this report. Loans increased \$1.2 billion, or 7.3%, from \$17.2 billion at December 31, 2022 to \$18.4 billion at September 30, 2023. The majority of our loan portfolio is comprised of commercial and industrial loans, energy loans, and real estate loans. Real estate loans include both commercial and consumer balances. Selected details related to our loan portfolio segments are presented below. Refer to our 2022 Form 10-K for a more detailed discussion of our loan origination and risk management processes.

Commercial and Industrial. Commercial and industrial loans increased \$162.1 million, or 2.9%, from \$5.7 billion at December 31, 2022 to \$5.8 billion at September 30, 2023. Our commercial and industrial loans are a diverse group of loans to small, medium and large businesses. The purpose of these loans varies from supporting seasonal working capital needs to term financing of equipment. While some short-term loans may be made on an unsecured basis, most are secured by the assets being financed with collateral margins that are consistent with our loan policy guidelines. The commercial and industrial loan portfolio also includes commercial leases and purchased shared national credits ("SNC"s).

Energy. Energy loans include loans to entities and individuals that are engaged in various energy-related activities including (i) the development and production of oil or natural gas, (ii) providing oil and gas field servicing, (iii) providing energy-related transportation services, (iv) providing equipment to support oil and gas drilling, (v) refining petrochemicals, or (vi) trading oil, gas and related commodities. Energy loans increased \$81.1 million, or 8.8%, from \$925.7 million at December 31, 2022 to \$1.0 billion at September 30, 2023. Energy loans are one of our largest industry concentrations totaling 5.5% of total loans at September 30, 2023, up from 5.4% of total loans at December 31, 2022. The average loan size, the significance of the portfolio and the specialized nature of the energy industry requires a highly prescriptive underwriting policy. Exceptions to this policy are rarely granted. Due to the large borrowing requirements of this customer base, the energy loan portfolio includes participations and SNCs.

Purchased Shared National Credits. SNCs are participations purchased from upstream financial organizations and tend to be larger in size than our originated portfolio. Our purchased SNC portfolio totaled \$789.3 million at September 30, 2023, decreasing \$1.2 million, or 0.2%, from \$790.5 million at December 31, 2022. At September 30, 2023, 35.1% of outstanding purchased SNCs were related to the construction industry while 19.3% were related to the energy industry, and 16.7% were related to the real estate management industry. The remaining purchased SNCs were diversified throughout various other industries, with no other single industry exceeding 10% of the total purchased SNC portfolio. Additionally, almost all of the outstanding balance of purchased SNCs was included in the energy and commercial and industrial portfolio, with the remainder included in the real estate categories. SNC participations are originated in the normal course of business to meet the needs of our customers. As a matter of policy, we generally only participate in SNCs for companies headquartered in or which have significant operations within our market areas. In addition, we must have direct access to the company's management, an existing banking relationship or the expectation of broadening the relationship with other banking products and services within the following 12 to 24 months. SNCs are reviewed at least quarterly for credit quality and business development successes.

Commercial Real Estate. Commercial real estate loans increased \$555.1 million, or 6.8%, from \$8.2 billion at December 31, 2022 to \$8.7 billion at September 30, 2023. Commercial real estate loans represented 78.9% of total real estate loans at September 30, 2023 compared to 81.6% at December 31, 2022. The majority of our commercial real estate loan portfolio consists of commercial real estate mortgages, which includes both permanent and intermediate term loans. These loans are viewed primarily as cash flow loans and secondarily as loans secured by real estate. Consequently, these loans must undergo the analysis and underwriting process of a commercial and industrial loan, as well as that of a real estate loan. At September 30, 2023, approximately 49.6% of the outstanding principal balance of our commercial real estate loans were secured by owner-occupied properties.

Consumer Real Estate and Other Consumer Loans. The consumer real estate loan portfolio increased \$495.8 million, or 26.9%, from \$1.8 billion at December 31, 2022 to \$2.3 billion at September 30, 2023. Combined, home equity loans and lines of credit made up 60.5% and 61.9% of the consumer real estate loan total at September 30, 2023 and December 31, 2022, respectively. We offer home equity loans up to 80% of the estimated value of the personal residence of the borrower, less the value of existing mortgages and home improvement loans. Prior to 2023, we did not generally originate 1-4 family mortgage loans; however, from time to time, we did invest in such loans to meet the needs of our customers or for other regulatory compliance purposes. We began offering 1-4 family mortgage loans to our employees during the first quarter of 2023 and have since gradually expanded our production of 1-4 family mortgage loans for customers. We expect our 1-4 family mortgage operations to be fully implemented across our markets by the end of 2023. Our 1-4 family mortgage loan production is intended to be for portfolio investment purposes. Nonetheless, 1-4 family mortgage loans are not a significant component of our consumer real estate portfolio. Consumer and other loans decreased \$33.0 million, or 6.7%, from December 31, 2022. The consumer and other loan portfolio primarily consists of automobile loans, overdrafts, unsecured revolving credit products, personal loans secured by cash and cash equivalents and other similar types of credit facilities.

Paycheck Protection Program. We have originated loans to qualified small businesses under the PPP administered by the SBA under the provisions of the CARES Act. Loans covered by the PPP may be eligible for loan forgiveness for certain costs incurred related to payroll, group health care benefit costs and qualifying mortgage, rent and utility payments. The remaining loan balance after forgiveness of any amounts is still fully guaranteed by the SBA. Refer to the 2022 Form 10-K for additional details.

Accruing Past Due Loans. Accruing past due loans are presented in the following tables. Also see Note 3 - Loans in the accompanying notes to consolidated financial statements included elsewhere in this report.

		Accruing Loans 30-89 Days Past Due		Accruing Loans 90 or More Days Past Due		Total Accruing Past Due Loans	
	Total Loans	Amount	Percent of Loans in Category	Amount	Percent of Loans in Category	Amount	Percent of Loans in Category
September 30, 2023							
Commercial and industrial	\$ 5,836,877	\$ 13,873	0.24 %	\$ 5,404	0.09 %	\$ 19,277	0.33 %
Energy	1,006,859	1,684	0.17	—	—	1,684	0.17
Paycheck Protection Program	17,945	2,000	11.15	1,954	10.89	3,954	22.04
Commercial real estate:							
Buildings, land, and other	7,193,785	9,368	0.13	1,056	0.01	10,424	0.14
Construction	1,544,666	8,523	0.55	—	—	8,523	0.55
Consumer real estate	2,339,363	12,106	0.52	6,801	0.29	18,907	0.81
Consumer and other	459,764	5,041	1.10	523	0.11	5,564	1.21
Total	<u>\$ 18,399,259</u>	<u>\$ 52,595</u>	0.29	<u>\$ 15,738</u>	0.09	<u>\$ 68,333</u>	0.38
Excluding PPP loans	<u>\$ 18,381,314</u>	<u>\$ 50,595</u>	0.28	<u>\$ 13,784</u>	0.07	<u>\$ 64,379</u>	0.35
December 31, 2022							
Commercial and industrial	\$ 5,674,798	\$ 30,769	0.54 %	\$ 5,560	0.10 %	\$ 36,329	0.64 %
Energy	925,729	1,472	0.16	—	—	1,472	0.16
Paycheck Protection Program	34,852	5,321	15.27	13,867	39.79	19,188	55.06
Commercial real estate:							
Buildings, land, and other	6,706,078	23,561	0.35	5,664	0.08	29,225	0.43
Construction	1,477,247	—	—	—	—	—	—
Consumer real estate	1,843,539	7,856	0.43	2,398	0.13	10,254	0.56
Consumer and other	492,726	5,155	1.05	311	0.06	5,466	1.11
Total	<u>\$ 17,154,969</u>	<u>\$ 74,134</u>	0.43	<u>\$ 27,800</u>	0.16	<u>\$ 101,934</u>	0.59
Excluding PPP loans	<u>\$ 17,120,117</u>	<u>\$ 68,813</u>	0.40	<u>\$ 13,933</u>	0.08	<u>\$ 82,746</u>	0.48

Accruing past due loans at September 30, 2023 decreased \$33.6 million compared to December 31, 2022. The decrease was primarily related to decreases in past due commercial real estate - buildings, land, and other loans (down \$18.8 million); past due commercial and industrial loans (down \$17.1 million); and past due PPP loans (down \$15.2 million) partly offset by increases in past due consumer real estate loans (up \$8.7 million) and past due commercial real estate - construction loans (up \$8.5 million). PPP loans are fully guaranteed by the SBA and we expect to collect all amounts due related to these loans. Excluding PPP loans, accruing past due loans decreased \$18.4 million.

Non-Accrual Loans. Non-accrual loans are presented in the table below. Also see in Note 3 - Loans in the accompanying notes to consolidated financial statements included elsewhere in this report.

	September 30, 2023			December 31, 2022		
	Total Loans	Non-Accrual Loans		Total Loans	Non-Accrual Loans	
		Amount	Percent of Loans in Category		Amount	Percent of Loans in Category
Commercial and industrial	\$ 5,836,877	\$ 27,326	0.47 %	\$ 5,674,798	\$ 18,130	0.32 %
Energy	1,006,859	14,200	1.41	925,729	15,224	1.64
Paycheck Protection Program	17,945	—	—	34,852	—	—
Commercial real estate:						
Buildings, land, and other	7,193,785	23,112	0.32	6,706,078	3,552	0.05
Construction	1,544,666	—	—	1,477,247	—	—
Consumer real estate	2,339,363	2,537	0.11	1,843,539	927	0.05
Consumer and other	459,764	—	—	492,726	—	—
Total	\$ 18,399,259	\$ 67,175	0.37	\$ 17,154,969	\$ 37,833	0.22
Allowance for credit losses on loans		\$ 242,235			\$ 227,621	
Ratio of allowance for credit losses on loans to non-accrual loans		360.60 %			601.65 %	

Non-accrual loans at September 30, 2023 increased \$29.3 million from December 31, 2022 primarily due to an increase in non-accrual commercial real estate - buildings, land, and other loans, which was mostly related to a single credit relationship; and, to a lesser extent, increases in non-accrual commercial and industrial loans and consumer real estate loans.

Generally, loans are placed on non-accrual status if principal or interest payments become 90 days past due and/or management deems the collectibility of the principal and/or interest to be in question, as well as when required by regulatory requirements. Once interest accruals are discontinued, accrued but uncollected interest is charged to current year operations. Subsequent receipts on non-accrual loans are recorded as a reduction of principal, and interest income is recorded only after principal recovery is reasonably assured. Classification of a loan as non-accrual does not preclude the ultimate collection of loan principal or interest. Non-accrual commercial and industrial loans included one credit relationship in excess of \$5.0 million totaling \$15.9 million at September 30, 2023, while there were no non-accrual commercial and industrial loans in excess of \$5.0 million at December 31, 2022. Non-accrual energy loans included one credit relationship in excess of \$5.0 million totaling \$6.3 million at September 30, 2023. There were two non-accrual energy loan relationships in excess of \$5.0 million with an aggregate balance of \$11.1 million at December 31, 2022. The aggregate balance of these loans totaled \$6.4 million at September 30, 2023 and neither credit relationship exceeded \$5.0 million as of that date. The decreases in the aggregate balance of these credit relationship were related to principal payments made by these borrowers. Non-accrual real estate loans primarily consist of land development, 1-4 family residential construction credit relationships and loans secured by office buildings and religious facilities. There was one non-accrual commercial real estate loan in excess of \$5.0 million totaling \$17.7 million at September 30, 2023, while there were no non-accrual commercial real estate loans in excess of \$5.0 million at December 31, 2022.

Allowance for Credit Losses

In the case of loans and securities, allowances for credit losses are contra-asset valuation accounts, calculated in accordance with Accounting Standards Codification (“ASC”) Topic 326 (“ASC 326”) Financial Instruments - Credit Losses, that are deducted from the amortized cost basis of these assets to present the net amount expected to be collected. In the case of off-balance-sheet credit exposures, the allowance for credit losses is a liability account, calculated in accordance with ASC 326, reported as a component of accrued interest payable and other liabilities in our consolidated balance sheets. The amount of each allowance account represents management's best estimate of current expected credit losses (“CECL”) on these financial instruments considering available information, from internal and external sources, relevant to assessing exposure to credit loss over the contractual term of the instrument. Relevant available information includes historical credit loss experience, current conditions, and reasonable and supportable forecasts. While historical credit loss experience provides the basis for the estimation of expected credit losses, adjustments to historical loss information may be made for differences in current portfolio-specific risk characteristics, environmental conditions, or other relevant factors. While management utilizes its best judgment and information available, the ultimate adequacy of our allowance accounts is dependent upon a variety of factors beyond our control, including the performance of our portfolios, the economy, changes in interest rates and the view of the regulatory authorities toward classification of assets. See our 2022 Form 10-K for additional information regarding our accounting policies

related to credit losses. Also see Note 3 - Loans in the accompanying notes to consolidated financial statements for information related to model updates during the first quarter of 2023.

Allowance for Credit Losses - Loans. The table below provides, as of the dates indicated, an allocation of the allowance for loan losses by loan portfolio segment; however, allocation of a portion of the allowance to one segment does not preclude its availability to absorb losses in other segments.

	Amount of Allowance Allocated	Percent of Loans in Each Category to Total Loans	Total Loans	Ratio of Allowance Allocated to Loans in Each Category
September 30, 2023				
Commercial and industrial	\$ 74,307	31.7 %	\$ 5,836,877	1.27 %
Energy	17,066	5.5	1,006,859	1.69
Paycheck Protection Program	—	0.1	17,945	—
Commercial real estate	126,492	47.5	8,738,451	1.45
Consumer real estate	15,039	12.7	2,339,363	0.64
Consumer and other	9,331	2.5	459,764	2.03
Total	\$ 242,235	100.0 %	\$ 18,399,259	1.32
December 31, 2022				
Commercial and industrial	\$ 104,237	33.1 %	\$ 5,674,798	1.84 %
Energy	18,062	5.4	925,729	1.95
Paycheck Protection Program	—	0.2	34,852	—
Commercial real estate	90,301	47.7	8,183,325	1.10
Consumer real estate	8,004	10.7	1,843,539	0.43
Consumer and other	7,017	2.9	492,726	1.42
Total	\$ 227,621	100.0 %	\$ 17,154,969	1.33

The allowance allocated to commercial and industrial loans totaled \$74.3 million, or 1.27% of total commercial and industrial loans, at September 30, 2023 decreasing \$29.9 million, or 28.7%, compared to \$104.2 million, or 1.84% of total commercial and industrial loans, at December 31, 2022. Modeled expected credit losses decreased \$16.5 million while qualitative factor (“Q-Factor”) and other qualitative adjustments related to commercial and industrial loans decreased \$12.7 million. Specific allocations for commercial and industrial loans that were evaluated for expected credit losses on an individual basis decreased \$720 thousand from \$6.1 million at December 31, 2022 to \$5.4 million at September 30, 2023. The decrease in specific allocations for commercial and industrial loans was primarily related to the recognition of charge-offs partly offset by new specific allocations for new individually assessed loans.

The allowance allocated to energy loans totaled \$17.1 million, or 1.69% of total energy loans, at September 30, 2023 decreasing \$996 thousand, or 5.5%, compared to \$18.1 million, or 1.95% of total energy loans, at December 31, 2022. Modeled expected credit losses related to energy loans decreased \$1.5 million while Q-Factor and other qualitative adjustments related to energy loans increased \$2.2 million. Specific allocations for energy loans that were evaluated for expected credit losses on an individual basis totaled \$2.7 million at September 30, 2023 decreasing \$1.7 million compared to \$4.4 million on December 31, 2022. The decrease in specific allocations for energy loans was related to principal payments received and loans no longer requiring a specific allocation.

The allowance allocated to commercial real estate loans totaled \$126.5 million, or 1.45% of total commercial real estate loans, at September 30, 2023 increasing \$36.2 million, or 40.1%, compared to \$90.3 million, or 1.10% of total commercial real estate loans, at December 31, 2022. Modeled expected credit losses related to commercial real estate loans decreased \$10.6 million while Q-Factor and other qualitative adjustments related to commercial real estate loans increased \$47.1 million. Specific allocations for commercial real estate loans that were evaluated for expected credit losses on an individual basis decreased from \$1.7 million at December 31, 2022 to \$1.4 million at September 30, 2023. The decrease in specific allocations for commercial real estate loans was related to principal payments received and loans no longer requiring a specific allocation partly offset by new specific allocations for new individually assessed loans.

The allowance allocated to consumer real estate loans totaled \$15.0 million, or 0.64% of total consumer real estate loans, at September 30, 2023 increasing \$7.0 million, or 87.9%, compared to \$8.0 million, or 0.43% of total consumer real estate loans, at December 31, 2022. Modeled expected credit losses related to consumer real estate loans increased \$6.4 million while Q-Factor and other qualitative adjustments related to consumer real estate loans increased \$341 thousand.

The allowance allocated to consumer loans totaled \$9.3 million, or 2.03% of total consumer loans, at September 30, 2023 increasing \$2.3 million, or 33.0%, compared to \$7.0 million, or 1.42% of total consumer loans, at December 31, 2022. Modeled expected credit losses related to consumer loans increased \$275 thousand while Q-Factor and other qualitative adjustments increased \$2.0 million, which was primarily due to an increase in the consumer overlay, which is further discussed below.

As more fully described in our 2022 Form 10-K, we measure expected credit losses over the life of each loan utilizing a combination of models which measure probability of default and loss given default, among other things. The measurement of expected credit losses is impacted by loan/borrower attributes and certain macroeconomic variables. Models are adjusted to reflect the current impact of certain macroeconomic variables as well as their expected changes over a reasonable and supportable forecast period.

In estimating expected credit losses as of September 30, 2023, we utilized the Moody's Analytics September 2023 Consensus Scenario (the "September 2023 Consensus Scenario") to forecast the macroeconomic variables used in our models. The September 2023 Consensus Scenario was based on the review of a variety of surveys of baseline forecasts of the U.S. economy. The September 2023 Consensus Scenario projections included, among other things, (i) U.S. Nominal Gross Domestic Product annualized quarterly growth rate of 3.13% during the remainder of 2023 followed by average annualized quarterly growth rates of 2.91% in 2024 and 4.31% through the end of the forecast period in the third quarter of 2025; (ii) average U.S. unemployment rate of 4.03% during the remainder of 2023 followed by average annualized quarterly rates of 4.52% in 2024 and 4.36% through the end of the forecast period in the third quarter of 2025; (iii) average Texas unemployment rate of 4.25% during the remainder of 2023 followed by average annualized quarterly rates of 4.38% in 2024 and 4.15% through the end of the forecast period in the third quarter of 2025; (iv) projected average 10 year Treasury rate of 4.18% during the remainder of 2023, decreasing to 3.94% during 2024 and 3.66% through the end of the forecast period in the third quarter of 2025 and (v) average oil price of \$78.95 per barrel during the remainder of 2023, increasing to \$79.15 per barrel in 2024 and decreasing to \$78.59 per barrel by the end of the forecast period in the third quarter of 2025.

In estimating expected credit losses as of December 31, 2022, we utilized the Moody's Analytics December 2022 Baseline Scenario (the "December 2022 Baseline Scenario") to forecast the macroeconomic variables used in our models. The December 2022 Baseline Scenario was based on the most likely outcome based on prevailing economic conditions and Moody's forecast of the U.S. economy. The December 2022 Baseline Scenario projections included, among other things, (i) U.S. Nominal Gross Domestic Product annualized quarterly growth rate of 2.65% in the first quarter of 2023, followed by annualized quarterly growth rates in the range of 3.62% to 4.50% during the remainder of 2023 and an average annualized growth rate of 4.79% through the end of the forecast period in the fourth quarter of 2024; (ii) U.S. unemployment rate of 3.80% in the first quarter of 2023 and an average quarterly U.S. unemployment rate of 4.06% through the end of the forecast period in the fourth quarter of 2024; (iii) Texas unemployment rate of 4.10% in the first quarter of 2023 and an average quarterly Texas unemployment rate of 4.04% through the end of the forecast period in the fourth quarter of 2024; (iv) projected average 10 year Treasury rate of 4.03% in the first quarter of 2023 and average projected rates of 4.25% during the remainder of 2023 and 3.96% in 2024; and (v) average oil price of \$93 per barrel in the first quarter of 2023 decreasing to \$67 per barrel by the end of the forecast period in the fourth quarter of 2024.

The overall loan portfolio as of September 30, 2023 increased \$1.2 billion, or 7.3%, compared to December 31, 2022. This increase included a \$555.1 million, or 6.8%, increase in commercial real estate loans; a \$495.8 million, or 26.9%, increase in consumer real estate loans; a \$162.1 million, or 2.9%, increase in commercial and industrial loans; and an \$81.1 million, or 8.8%, increase in energy loans; partly offset by a \$33.0 million, or 6.7%, decrease in consumer and other loans.

The weighted average risk grade for commercial and industrial loans increased to 6.46 at September 30, 2023 from 6.39 at December 31, 2022. The increase was partly related to an increase in the weighted-average risk grade of pass-grade commercial and industrial loans, which increased to 6.29 at September 30, 2023 from 6.24 at December 31, 2022, and a \$48.9 million increase in higher-risk grade classified loans. Classified loans consist of loans having a risk grade of 11, 12 or 13. The impact of the increase in the volume of classified commercial and industrial loans was partly offset by a decrease in the weighted-average risk grade of such loans from 11.43 at December 31, 2022 to 11.31 at September 30, 2023. The weighted-average risk grade for energy loans increased to 6.10 at September 30, 2023 from 5.67 at December 31, 2022. Pass grade energy loans increased \$16.5 million while the weighted-average risk grade of such loans increased from 5.44 at December 31, 2022 to 5.67 at September 30, 2023. The weighted average risk grade for commercial real estate loans increased to 7.22 at September 30, 2023 from 7.10 at December 31, 2022. Pass grade commercial real estate loans increased \$462.5 million while the weighted-average risk grade of such loans increased from 6.96 at December 31, 2022 to 7.05 at September 30, 2023. Commercial real estate loans graded as "watch" and "special mention" increased \$12.8 million while classified commercial real estate loans increased \$79.8 million.

As noted above, our credit loss models utilized the economic forecasts in the Moody's September 2023 Consensus Scenario for our estimated expected credit losses as of September 30, 2023 and the Moody's December 2022 Baseline Scenario for our estimate of expected credit losses as of December 31, 2022. We qualitatively adjusted the model results based on these scenarios for various risk factors that are not considered within our modeling processes but are nonetheless relevant in assessing the expected credit losses within our loan pools. These qualitative factor, or Q-Factor, adjustments are discussed below.

Q-Factor adjustments are based upon management's judgment and current assessment as to the impact of risks related to changes in lending policies and procedures; economic and business conditions; loan portfolio attributes and credit concentrations; and external factors, among other things, that are not already captured within the modeling inputs, assumptions and other processes. Management assesses the potential impact of such items within a range of severely negative impact to positive impact and adjusts the modeled expected credit loss by an aggregate adjustment percentage based upon the assessment. As a result of this assessment as of September 30, 2023, modeled expected credit losses were adjusted upwards by a weighted-average Q-Factor adjustment of approximately 4.5%, resulting in a \$3.8 million total adjustment, compared to 2.3% at December 31, 2022, which resulted in a \$2.3 million total adjustment. The increase in the Q-Factor adjustment percentage as of September 30, 2023 was largely related to a generally more negative outlook associated with national, regional and local economic and business conditions and developments that affect the collectability of loans; changes in loan portfolio concentrations; changes in the volumes and severity of loan delinquencies; changes in risk grades and adverse classifications; and the potential for deterioration of collateral values, among other things.

We have also provided additional qualitative adjustments, or management overlays, as of September 30, 2023 as management believes there are still significant risks impacting certain categories of our loan portfolio. Q-Factor and other qualitative adjustments as of September 30, 2023 are detailed in the table below.

	Q-Factor Adjustment	Model Overlays	Office Building Overlays	Down-Side Scenario Overlay	Credit Concentration Overlays	Consumer Overlay	Total
Commercial and industrial	\$ 1,816	\$ —	\$ —	\$ 14,802	\$ 6,929	\$ —	\$ 23,547
Energy	283	—	—	—	7,018	—	7,301
Commercial real estate:							
Owner occupied	445	25,008	—	—	626	—	26,079
Non-owner occupied	243	35,162	11,110	—	1,076	—	47,591
Construction	487	28,261	5,400	—	862	—	35,010
Consumer real estate	498	—	—	—	—	—	498
Consumer and other	73	—	—	—	—	4,000	4,073
Total	\$ 3,845	\$ 88,431	\$ 16,510	\$ 14,802	\$ 16,511	\$ 4,000	\$ 144,099

Model overlays are qualitative adjustments to address the effects of risks not captured within our commercial real estate credit loss models. These adjustments are determined based upon minimum reserve ratios for our commercial real estate loans. In the case of our commercial real estate - owner occupied loan portfolio, we determined a minimum reserve ratio is appropriate to address the effect of the model's over-sensitivity to positive changes in certain economic variables. After analysis and benchmarking against peer bank data, we believe the modeled results may be overly optimistic and not appropriately capturing downside risk. As such, we determined that the appropriate forecasted loss rate for our owner-occupied commercial real estate loan portfolio should be more closely aligned with that of our commercial and industrial loan portfolio. In the case of our commercial real estate - non-owner occupied and commercial real estate - construction loan portfolios, we determined minimum reserve ratios are appropriate as we believe the modeled results are not appropriately capturing the downside risk associated with our borrowers' ability to access the capital markets for the sale or refinancing of investor real estate and assets currently under construction. We believe access to capital may be impaired for a significant amount of time. Accordingly, this would require secondary sources of liquidity and capital to support completed projects that may take considerably longer to stabilize than originally underwritten. Furthermore, rapidly rising interest rates have presented a new emerging risk as most non-owner occupied and construction loans are originated with floating interest rates.

Office building overlays are qualitative adjustments to address longer-term concerns over the utilization of commercial office space which could impact the long-term performance of some types of office properties within our commercial real estate loan portfolio. These adjustments are determined based upon minimum reserve ratios for loans within our commercial real estate - non-owner occupied and commercial real estate - construction loan portfolios that have risk grades of 8 or worse.

The down-side scenario overlay is a qualitative adjustment for our commercial and industrial loan portfolio to address the significant risk of economic recession as a result of inflation; rising interest rates; labor shortages; disruption in financial markets and global supply chains; further oil price volatility; and the current or anticipated impact of global wars/military conflicts, terrorism, or other geopolitical events. Factors such as these are outside of our control but nonetheless affect customer income levels and could alter anticipated customer behavior, including borrowing, repayment, investment, and deposit practices. To determine this qualitative adjustment, we use an alternative, more pessimistic economic scenario to forecast the macroeconomic variables used in our models. As of September 30, 2023, we used the Moody's Analytics September S3 Alternative Scenario Downside - 90th Percentile. In modeling expected credit losses using this scenario, we also assume each non-classified loan within our modeled loan pools is downgraded by one risk grade level. The qualitative adjustment is based upon the amount by which the alternative scenario modeling results exceed those of the primary scenario used in estimating credit loss expense, adjusted based upon management's assessment of the probability that this more pessimistic economic scenario will occur.

Credit concentration overlays are qualitative adjustments based upon statistical analysis to address relationship exposure concentrations within our loan portfolio. Variations in loan portfolio concentrations over time cause expected credit losses within our existing portfolio to differ from historical loss experience. Given that the allowance for credit losses on loans reflects expected credit losses within our loan portfolio and the fact that these expected credit losses are uncertain as to nature, timing and amount, management believes that segments with higher concentration risk are more likely to experience a high loss event. Due to the fact that a significant portion of our loan portfolio is concentrated in large credit relationships and because of large, concentrated credit losses in recent years, management made the qualitative adjustments detailed in the table above to address the risk associated with such a relationship deteriorating to a loss event.

The consumer overlay is a qualitative adjustment for our consumer and other loan portfolio to address the risk associated with the level of unsecured loans within this portfolio and other risk factors. Unsecured consumer loans have an elevated risk of loss in times of economic stress as these loans lack a secondary source of repayment in the form of hard collateral. This adjustment was determined by analyzing our consumer loan charge-off trends as well as those of the general banking industry. Management deemed it appropriate to consider an additional overlay to the modeled forecasted losses for the unsecured consumer portfolio.

As of December 31, 2022, we provided qualitative adjustments, as detailed in the table below. Further information regarding these qualitative adjustments is provided in our 2022 Form 10-K.

	Q-Factor Adjustment	Model Overlays	Office Building Overlays	Down-Side Scenario Overlay	Credit Concentration Overlays	Consumer Overlay	Total
Commercial and industrial	\$ 929	\$ —	\$ —	\$ 29,632	\$ 5,676	\$ —	\$ 36,237
Energy	128	—	—	—	5,020	—	5,148
Commercial real estate:							
Owner occupied	318	19,708	—	—	1,718	—	21,744
Non-owner occupied	95	10,472	16,557	—	487	—	27,611
Construction	660	7,905	3,122	—	530	—	12,217
Consumer real estate	157	—	—	—	—	—	157
Consumer and other	34	—	—	—	—	2,000	2,034
Total	<u>\$ 2,321</u>	<u>\$ 38,085</u>	<u>\$ 19,679</u>	<u>\$ 29,632</u>	<u>\$ 13,431</u>	<u>\$ 2,000</u>	<u>\$ 105,148</u>

Additional information related to credit loss expense and net (charge-offs) recoveries is presented in the tables below. Also see Note 3 - Loans in the accompanying notes to consolidated financial statements included elsewhere in this report.

	Credit Loss Expense (Benefit)	Net (Charge-Offs) Recoveries	Average Loans	Ratio of Annualized Net (Charge-Offs) Recoveries to Average Loans
Three months ended:				
September 30, 2023				
Commercial and industrial	\$ (623)	\$ (236)	\$ 5,742,644	(0.02)%
Energy	1,784	353	985,432	0.14
Paycheck Protection Program	—	—	19,924	—
Commercial real estate	5,424	142	8,502,967	0.01
Consumer real estate	2,130	(126)	2,251,932	(0.02)
Consumer and other	4,893	(5,125)	462,444	(4.40)
Total	<u>\$ 13,608</u>	<u>\$ (4,992)</u>	<u>\$ 17,965,343</u>	<u>(0.11)</u>
September 30, 2022				
Commercial and industrial	\$ 10,844	\$ 716	\$ 5,501,675	0.05 %
Energy	2,491	93	971,418	0.04
Paycheck Protection Program	—	—	70,896	—
Commercial real estate	(16,522)	23	8,147,431	—
Consumer real estate	940	241	1,630,568	0.06
Consumer and other	(216)	(3,927)	500,945	(3.11)
Total	<u>\$ (2,463)</u>	<u>\$ (2,854)</u>	<u>\$ 16,822,933</u>	<u>(0.07)</u>
Nine months ended:				
September 30, 2023				
Commercial and industrial	\$ (18,903)	\$ (11,027)	\$ 5,705,645	(0.26)%
Energy	(1,683)	687	1,023,472	0.09
Paycheck Protection Program	—	—	26,033	—
Commercial real estate	35,918	273	8,346,397	—
Consumer real estate	7,235	(200)	2,079,406	(0.01)
Consumer and other	15,649	(13,335)	470,967	(3.79)
Total	<u>\$ 38,216</u>	<u>\$ (23,602)</u>	<u>\$ 17,651,920</u>	<u>(0.18)</u>
September 30, 2022				
Commercial and industrial	\$ 29,347	\$ (2,608)	\$ 5,495,705	(0.06)%
Energy	874	760	1,021,927	0.10
Paycheck Protection Program	—	—	171,591	—
Commercial real estate	(44,363)	34	7,932,491	—
Consumer real estate	1,497	(47)	1,516,912	—
Consumer and other	10,250	(10,095)	490,933	(2.75)
Total	<u>\$ (2,395)</u>	<u>\$ (11,956)</u>	<u>\$ 16,629,559</u>	<u>(0.10)</u>

We recorded a net credit loss expense related to loans totaling \$38.2 million for the nine months ended September 30, 2023 while we recorded a net credit loss expense totaling \$2.4 million during the same period in 2022. Net credit loss expense/benefit for each portfolio segment reflects the amount needed to adjust the allowance for credit losses allocated to that segment to the level of expected credit losses determined under our allowance methodology after net charge-offs have been recognized.

The net credit loss expense related to loans during the first nine months of 2023 primarily reflects an increase in expected credit losses associated with commercial real estate loans, primarily related to increases in the minimum reserve ratios for our commercial real estate - non-owner occupied and construction portfolios. The net credit loss expense related to loans during the first nine months of 2023 also reflects charge-off trends related to commercial and industrial loans as well as consumer and other loans (primarily related to overdrafts) and the additional expected credit losses associated with our consumer real estate and consumer and other loan portfolios. The impact of these items was partly offset by a decrease in expected credit losses associated with commercial and industrial loans; primarily related to decreases in modeled expected losses and the down-side scenario overlay; and a decrease in the expected credit losses associated with energy loans; primarily related to decreases in modeled expected losses and specific allocations.

The ratio of the allowance for credit losses on loans to total loans was 1.32% at September 30, 2023 compared to 1.33% at December 31, 2022. Management believes the recorded amount of the allowance for credit losses on loans is appropriate based upon management's best estimate of current expected credit losses within the existing portfolio of loans. Should any of the factors considered by management in making this estimate change, our estimate of current expected credit losses could also change, which could affect the level of future credit loss expense related to loans.

Allowance for Credit Losses - Off-Balance-Sheet Credit Exposures. The allowance for credit losses on off-balance-sheet credit exposures totaled \$50.4 million and \$58.6 million at September 30, 2023 and December 31, 2022, respectively. The level of the allowance for credit losses on off-balance-sheet credit exposures depends upon the volume of outstanding commitments, underlying risk grades, the expected utilization of available funds and forecasted economic conditions impacting our loan portfolio. We recognized a net credit loss benefit related to off-balance-sheet credit exposures totaling \$8.2 million during the nine months ended September 30, 2023 compared to a net credit loss expense of \$2.4 million during the same period in 2022. Our policies and methodology used to estimate the allowance for credit losses on off-balance-sheet credit exposures are further described in our 2022 Form 10-K. This methodology was also impacted by the model updates during the first quarter of 2023 described in Note 3 - Loans in the accompanying notes to consolidated financial statements elsewhere in this report. The overall approximate impact of model updates during the first quarter was a \$19.0 million decrease in modeled expected credit losses for off-balance-sheet credit exposures, though the impact of this decrease was largely offset with a qualitative adjustment similar to the model overlay described above for commercial real estate - construction loans.

Capital and Liquidity

Capital. Shareholders' equity totaled \$3.0 billion and \$3.1 billion at September 30, 2023 and December 31, 2022, respectively. Sources of capital during the nine months ended September 30, 2023 included net income of \$495.4 million, \$12.6 million related to stock-based compensation and \$3.0 million in proceeds from stock option exercises. Uses of capital during the nine months ended September 30, 2023 included an other comprehensive loss, net of tax, of \$430.5 million; \$177.6 million of dividends paid on preferred and common stock; and \$40.5 million of treasury stock purchases.

The accumulated other comprehensive income/loss component of shareholders' equity totaled a net, after-tax, unrealized loss of \$1.8 billion at September 30, 2023 compared to a net, after-tax, unrealized loss of \$1.3 billion at December 31, 2022. The increase in the net, after-tax, unrealized loss was primarily due to a \$432.6 million net, after-tax, decrease in the fair value of securities available for sale.

Under the Basel III Capital Rules, we have elected to opt-out of the requirement to include most components of accumulated other comprehensive income in regulatory capital. Accordingly, amounts reported as accumulated other comprehensive income/loss do not increase or reduce regulatory capital and are not included in the calculation of our regulatory capital ratios. In connection with the adoption of ASC 326 on January 1, 2020, we also elected to exclude, for a transitional period, the effects of credit loss accounting under CECL in the calculation of our regulatory capital and regulatory capital ratios. Regulatory agencies for banks and bank holding companies utilize capital guidelines designed to measure capital and take into consideration the risk inherent in both on-balance-sheet and off-balance-sheet items. See Note 6 - Capital and Regulatory Matters in the accompanying notes to consolidated financial statements included elsewhere in this report.

We paid a quarterly dividend of \$0.87, \$0.87, and \$0.92 per common share during the first, second and third quarters of 2023, respectively and a quarterly dividend of \$0.75, \$0.75 and \$0.87 per common share during the first, second and third quarters of 2022, respectively. These dividend amounts equate to a common stock dividend payout ratio of 35.2% and 40.0% during the first nine months of 2023 and 2022, respectively. Our ability to declare or pay dividends on, or purchase, redeem or otherwise acquire, shares of our capital stock may be impacted by certain restrictions described in Note 6 - Capital and Regulatory Matters in the accompanying notes to consolidated financial statements included elsewhere in this report.

Stock Repurchase Plans. From time to time, our board of directors has authorized stock repurchase plans. In general, stock repurchase plans allow us to proactively manage our capital position and return excess capital to shareholders. Shares purchased under such plans also provide us with shares of common stock necessary to satisfy obligations related to stock compensation awards. For additional details, see Note 6 - Capital and Regulatory Matters in the accompanying notes to consolidated financial statements and Part II, Item 2 - Unregistered Sales of Equity Securities, Use of Proceeds, and Issuer Purchases of Equity Securities each included elsewhere in this report.

In August 2022, the Inflation Reduction Act of 2022 (the "IRA") was enacted. Among other things, the IRA imposes a new 1% excise tax on the fair market value of stock repurchased after December 31, 2022 by publicly traded U.S. corporations. With certain exceptions, the value of stock repurchased is determined net of stock issued in the year, including pursuant to compensatory arrangements.

Liquidity. As more fully discussed in our 2022 Form 10-K, our liquidity position is continuously monitored, and adjustments are made to the balance between sources and uses of funds as deemed appropriate. Liquidity risk management is an important element in our asset/liability management process. We regularly model liquidity stress scenarios to assess potential liquidity outflows or funding problems resulting from economic disruptions, volatility in the financial markets, unexpected credit events or other significant occurrences deemed problematic by management. These scenarios are incorporated into our contingency funding plan, which provides the basis for the identification of our liquidity needs. Our principal source of funding has been our customer deposits, supplemented by our short-term and long-term borrowings as well as maturities of securities and loan amortization. As of September 30, 2023, we had approximately \$7.0 billion held in an interest-bearing account at the Federal Reserve. We also have the ability to borrow funds as a member of the Federal Home Loan Bank (“FHLB”). As of September 30, 2023, based upon available, pledgeable collateral, our total borrowing capacity with the FHLB was approximately \$5.4 billion. Furthermore, at September 30, 2023, we had approximately \$14.1 billion in securities that were unencumbered by a pledge and could be used to support additional borrowings, as needed, through repurchase agreements, the Federal Reserve discount window or the Federal Reserve's new Bank Term Funding Program (“BTFP”). The BTFP is a new facility established in response to recent liquidity concerns within the banking industry in part due to recent deposit runs that resulted in a few large bank failures. The BTFP was designed to provide available additional funding to eligible depository institutions in order to help assure that banks have the ability to meet the needs of all their depositors. Under the program, eligible depository institutions can obtain loans of up to one year in length by pledging U.S. Treasuries, agency debt and mortgage-backed securities, and other qualifying assets as collateral. These assets will be valued at par. The BTFP is intended to eliminate the need for depository institutions to quickly sell their securities when they are experiencing stress on their liquidity.

Since Cullen/Frost is a holding company and does not conduct operations, its primary sources of liquidity are dividends upstreamed from Frost Bank and borrowings from outside sources. Banking regulations may limit the amount of dividends that may be paid by Frost Bank. See Note 6 - Capital and Regulatory Matters in the accompanying notes to consolidated financial statements included elsewhere in this report regarding such dividends. At September 30, 2023, Cullen/Frost had liquid assets, primarily consisting of cash on deposit at Frost Bank, totaling \$317.1 million.

Accounting Standards Updates

See Note 16 - Accounting Standards Updates in the accompanying notes to consolidated financial statements included elsewhere in this report for details of recently issued accounting pronouncements and their expected impact on our financial statements.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

The disclosures set forth in this item are qualified by the section captioned “Forward-Looking Statements and Factors that Could Affect Future Results” included in Item 2. Management’s Discussion and Analysis of Financial Condition and Results of Operations of this report and other cautionary statements set forth elsewhere in this report.

Refer to the discussion of market risks included in Item 7A. Quantitative and Qualitative Disclosures About Market Risk in the 2022 Form 10-K. There has been no significant change in the types of market risks we face since December 31, 2022.

We utilize an earnings simulation model as the primary quantitative tool in measuring the amount of interest rate risk associated with changing market rates. The model quantifies the effects of various interest rate scenarios on projected net interest income and net income over the next 12 months. The model measures the impact on net interest income relative to a flat-rate case scenario of hypothetical fluctuations in interest rates over the next 12 months. These simulations incorporate assumptions regarding balance sheet growth and mix, pricing and the repricing and maturity characteristics of the existing and projected balance sheet. The impact of interest rate derivatives, such as interest rate swaps, caps, and floors, is also included in the model. Other interest rate-related risks such as prepayment, basis and option risk are also considered.

For modeling purposes, as of September 30, 2023, the model simulations projected that 100 and 200 basis point ratable increases in interest rates would result in positive variances in net interest income of 1.7% and 3.3%, respectively, relative to the flat-rate case over the next 12 months, while 100 and 200 basis point ratable decreases in interest rates would result in a negative variances in net interest income of 1.2% and 2.8%, respectively, relative to the flat-rate case over the next 12 months. For modeling purposes, as of December 31, 2022, the model simulations projected that 100 and 200 basis point ratable increases in interest rates would result in positive variances in net interest income of 0.2% and 1.4%, respectively, relative to the flat-rate case over the next 12 months, while 100 and 200 basis point ratable decreases in interest rates would result in a negative variances in net interest income of 0.2% and 1.4%, respectively, relative to the flat-rate case over the next 12 months.

We do not currently pay interest on a significant portion of our commercial demand deposits. Any interest rate that would ultimately be paid on these commercial demand deposits would likely depend upon a variety of factors, some of which are beyond our control. Our September 30, 2023 and December 31, 2022 model simulations did not assume any payment of interest on commercial demand deposits (those not already receiving an earnings credit). Management believes, based on our experience during the last interest rate cycle, that it is less likely we will pay interest on these deposits as rates increase.

The model simulations as of September 30, 2023 indicate that our projected balance sheet is more asset sensitive in comparison to our balance sheet as of December 31, 2022. The increased asset sensitivity was partly due to a decrease in the expected deposit pricing beta for rate increases on certain types of deposit accounts. The deposit pricing beta is a measure of how much deposit rates will reprice, up or down, given a defined change in market rates. Management believes that the deposit pricing betas used as of September 30, 2023 are more reflective of current expectations. The increased asset sensitivity was also partly due to an increase in the relative proportion of interest-bearing deposits (primarily amounts held in an interest-bearing account at the Federal Reserve) and federal funds sold to projected average interest-earning assets combined with a decrease in the relative proportion of fixed-rate securities to projected average interest-earning assets. Interest-bearing deposits and federal funds sold are more immediately impacted by changes in interest rates in comparison to our other categories of earning assets.

As of September 30, 2023, the effects of a 200 basis point increase and a 200 basis point decrease in interest rates on our derivative holdings would not result in a significant variance in our net interest income.

The effects of hypothetical fluctuations in interest rates on our securities classified as “trading” under ASC Topic 320, “Investments—Debt and Equity Securities,” are not significant, and, as such, separate quantitative disclosure is not presented.

Item 4. Controls and Procedures

As of the end of the period covered by this Quarterly Report on Form 10-Q, an evaluation was conducted by management, with the participation of its Chief Executive Officer and Chief Financial Officer, of the effectiveness of our disclosure controls and procedures (as defined in Rule 13a-15(e) under the Securities Exchange Act of 1934). Based upon that evaluation, the Chief Executive Officer and Chief Financial Officer concluded that the disclosure controls and procedures were effective as of the end of the period covered by this report. No change in our internal control over financial reporting (as defined in Rule 13a-15(f) under the Securities Exchange Act of 1934) occurred during the last fiscal quarter that materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Part II. Other Information**Item 1. Legal Proceedings**

We are subject to various claims and legal actions that have arisen in the course of conducting business. Management does not expect the ultimate disposition of these matters to have a material adverse impact on our financial statements.

Item 1A. Risk Factors

There has been no material change in the risk factors disclosed under Item 1A. of our 2022 Form 10-K.

Item 2. Unregistered Sales of Equity Securities, Use of Proceeds, and Issuer Purchases of Equity Securities

The following table provides information with respect to purchases we made or were made on our behalf or any “affiliated purchaser” (as defined in Rule 10b-18(a)(3) under the Securities Exchange Act of 1934), of our common stock during the three months ended September 30, 2023. Dollar amounts in thousands.

Period	Total Number of Shares Purchased	Average Price Paid Per Share	Total Number of Shares Purchased as Part of Publicly Announced Plan	Maximum Number of Shares (or Approximate Dollar Value) That May Yet Be Purchased Under the Plan at the End of the Period
July 1, 2023 to July 31, 2023	37,378	\$ 106.09	37,378	\$ 68,293
August 1, 2023 to August 31, 2023	59,820	98.94	59,820	62,374
September 1, 2023 to September 30, 2023	14,758	93.74	14,758	60,991
Total	<u>111,956</u>		<u>111,956</u>	

Item 3. Defaults Upon Senior Securities

None.

Item 4. Mine Safety Disclosures

None.

Item 5. Other Information

Rule 10b5-1 and Non-Rule 10b5-1 Trading Arrangements. None.

Item 6. Exhibits

(a) Exhibits

Exhibit Number	Description
31.1	Rule 13a-14(a) Certification of the Corporation's Chief Executive Officer
31.2	Rule 13a-14(a) Certification of the Corporation's Chief Financial Officer
32.1 ⁽¹⁾	Section 1350 Certification of the Corporation's Chief Executive Officer
32.2 ⁽¹⁾	Section 1350 Certification of the Corporation's Chief Financial Officer
101.INS ⁽²⁾	Inline XBRL Instance Document
101.SCH	Inline XBRL Taxonomy Extension Schema Document
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	InlineXBRL Taxonomy Extension Label Linkbase Document
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document
104 ⁽³⁾	Cover Page Interactive Data File

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- (1) This exhibit shall not be deemed “filed” for purposes of Section 18 of the Securities Exchange Act of 1934, or otherwise subject to the liability of that section, and shall not be deemed to be incorporated by reference into any filing under the Securities Act of 1933 or the Securities Exchange Act of 1934.
- (2) The instance document does not appear in the interactive data file because its XBRL tags are embedded within the Inline XBRL document.
- (3) Formatted as Inline XBRL and contained within the Inline XBRL Instance Document in Exhibit 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 thereunto duly authorized.

Cullen/Frost Bankers, Inc.

(Registrant)

Date: October 26, 2023

By: /s/ Jerry Salinas

Jerry Salinas

Group Executive Vice President

and Chief Financial Officer

**(Duly Authorized Officer, Principal Financial
Officer and Principal Accounting Officer)**

**Rule 13a-14(a) Certification
of the Corporation's Chief Executive Officer**

I, Phillip D. Green, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Cullen/Frost Bankers, Inc.;
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 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 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 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.

October 26, 2023

/s/ Phillip D. Green

Phillip D. Green
Chief Executive Officer

**Rule 13a-14(a) Certification
of the Corporation's Chief Financial Officer**

I, Jerry Salinas, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Cullen/Frost Bankers, Inc.;
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 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 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 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.

October 26, 2023

/s/ Jerry Salinas

Jerry Salinas
Group Executive Vice President and Chief Financial Officer

**Section 1350 Certification of the
Corporation's Chief Executive Officer**

Pursuant to Subsections (a) and (b) of Section 1350 of Chapter 63 of Title 18 of the United States Code in accordance with Section 906 of the Sarbanes-Oxley Act of 2002, the undersigned, Phillip D. Green, Chief Executive Officer, of Cullen/Frost Bankers, Inc. (the "Corporation"), hereby certifies, to his knowledge, that the Corporation's Quarterly Report on Form 10-Q for the quarter ended September 30, 2023 (the "Report") fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, and that the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Corporation.

/s/ Phillip D. Green

Phillip D. Green

October 26, 2023

The forgoing certification is being furnished solely pursuant to Subsections (a) and (b) of Section 1350 of Chapter 63 of Title 18 of the United States Code in accordance with Section 906 of the Sarbanes-Oxley Act of 2002 and shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, or otherwise subject to the liability of that section, and shall not be deemed to be incorporated by reference into any filing under the Securities Act of 1933 or the Securities Exchange Act of 1934.

**Section 1350 Certification of the
Corporation's Chief Financial Officer**

Pursuant to Subsections (a) and (b) of Section 1350 of Chapter 63 of Title 18 of the United States Code in accordance with Section 906 of the Sarbanes-Oxley Act of 2002, the undersigned, Jerry Salinas, Chief Financial Officer, of Cullen/Frost Bankers, Inc. (the "Corporation"), hereby certifies, to his knowledge, that the Corporation's Quarterly Report on Form 10-Q for the quarter ended September 30, 2023 (the "Report") fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, and that the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Corporation.

/s/ Jerry Salinas

Jerry Salinas

October 26, 2023

The forgoing certification is being furnished solely pursuant to Subsections (a) and (b) of Section 1350 of Chapter 63 of Title 18 of the United States Code in accordance with Section 906 of the Sarbanes-Oxley Act of 2002 and shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, or otherwise subject to the liability of that section, and shall not be deemed to be incorporated by reference into any filing under the Securities Act of 1933 or the Securities Exchange Act of 1934.