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

FORM 10-Q

(Mark One)

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

For the quarterly period ended September 30, 2016

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

For the transition period from to

Commission File Number: 001-31343

Associated Banc-Corp

(Exact name of registrant as specified in its charter)

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

(920) 491-7500

(Registrant's telephone number, including area code)

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

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 and posted on its corporate Website, if any, every Interactive Data File required to be submitted and posted 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 and post such files).

Yes ☑ No ☐

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

Large accelerated filer ☑	Accelerated filer ☐
Non-accelerated filer ☐ (Do not check if a smaller reporting company)	Smaller reporting company ☐

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

APPLICABLE ONLY TO CORPORATE ISSUERS:

The number of shares outstanding of registrant's common stock, par value $0.01 per share, at October 25, 2016, was 150,469,386.

ASSOCIATED BANC-CORP
TABLE OF CONTENTS

PART I - FINANCIAL INFORMATION

ITEM 1. Financial Statements:

ASSOCIATED BANC-CORP
Consolidated Balance Sheets

	September 30, 2016	December 31, 2015
	(Unaudited)	(Audited)
	(In Thousands, except share and per share data)	
ASSETS		
Cash and due from banks	$ 356,047	$ 374,921
Interest-bearing deposits in other financial institutions	240,010	79,764
Federal funds sold and securities purchased under agreements to resell	14,250	19,000
Investment securities held to maturity, at amortized cost	1,253,494	1,168,230
Investment securities available for sale, at fair value	4,846,088	4,967,414
Federal Home Loan Bank and Federal Reserve Bank stocks, at cost	140,215	147,240
Loans held for sale	230,795	124,915
Loans	19,844,005	18,714,343
Allowance for loan losses	(269,540)	(274,264)
Loans, net	19,574,465	18,440,079
Premises and equipment, net	329,726	267,606
Goodwill	971,951	968,844
Mortgage servicing rights, net	58,414	61,341
Other intangible assets, net	15,902	16,458
Trading assets	60,780	32,192
Other assets	1,060,627	1,043,831
Total assets	$ 29,152,764	$ 27,711,835
LIABILITIES AND STOCKHOLDERS' EQUITY		
Noninterest-bearing demand deposits	$ 5,337,677	$ 5,562,466
Interest-bearing deposits	16,410,035	15,445,199
Total deposits	21,747,712	21,007,665
Federal funds purchased and securities sold under agreements to repurchase	698,772	431,438
Other short-term funding	541,321	402,978
Long-term funding	2,761,635	2,676,164
Trading liabilities	62,301	33,430
Accrued expenses and other liabilities	243,908	222,914
Total liabilities	26,055,649	24,774,589
Stockholders' equity		
Preferred equity	159,929	121,379
Common equity:		
Common stock	1,630	1,642
Surplus	1,459,161	1,458,522
Retained earnings	1,662,778	1,593,239
Accumulated other comprehensive loss	(1,254)	(32,616)
Treasury stock, at cost	(185,129)	(204,920)
Total common equity	2,937,186	2,815,867
Total stockholders' equity	3,097,115	2,937,246
Total liabilities and stockholders' equity	$ 29,152,764	$ 27,711,835
Preferred shares issued	165,000	125,114
Preferred shares authorized (par value $1.00 per share)	750,000	750,000
Common shares issued	163,030,209	164,200,068
Common shares authorized (par value $0.01 per share)	250,000,000	250,000,000
Treasury shares of common stock	11,787,605	12,960,636

See accompanying notes to consolidated financial statements.

Item 1. Financial Statements Continued:

ASSOCIATED BANC-CORP
Consolidated Statements of Income (Unaudited)

	Three months ended September 30, 2016	Three months ended September 30, 2015	Nine months ended September 30, 2016	Nine months ended September 30, 2015
	(In Thousands, except per share data)			
INTEREST INCOME				
Interest and fees on loans	$ 167,350	$ 155,663	$ 490,065	$ 460,025
Interest and dividends on investment securities:				
Taxable	22,948	24,937	72,734	73,897
Tax-exempt	8,141	7,917	23,865	23,369
Other interest	1,064	1,489	3,449	4,952
Total interest income	199,503	190,006	590,113	562,243
INTEREST EXPENSE				
Interest on deposits	13,118	8,521	36,562	24,281
Interest on Federal funds purchased and securities sold under agreements to repurchase	326	248	1,000	714
Interest on other short-term funding	296	83	1,656	279
Interest on long-term funding	7,229	10,645	23,657	32,159
Total interest expense	20,969	19,497	62,875	57,433
NET INTEREST INCOME	178,534	170,509	527,238	504,810
Provision for credit losses	21,000	8,000	55,000	17,500
Net interest income after provision for credit losses	157,534	162,509	472,238	487,310
NONINTEREST INCOME				
Trust service fees	11,700	12,273	34,656	36,875
Service charges on deposit accounts	17,445	17,385	50,162	48,894
Card-based and other nondeposit fees	12,777	12,618	37,485	38,631
Insurance commissions	19,431	17,561	62,818	57,366
Brokerage and annuity commissions	4,155	3,809	12,047	11,684
Mortgage banking, net	18,291	6,643	26,562	23,992
Capital market fees, net	7,012	2,170	14,343	7,329
Bank owned life insurance income	3,290	2,448	11,033	7,704
Asset gains (losses), net	(1,034)	244	(853)	2,931
Investment securities gains (losses), net	(13)	2,796	6,201	4,038
Other	2,180	2,118	6,140	6,916
Total noninterest income	95,234	80,065	260,594	246,360
NONINTEREST EXPENSE				
Personnel expense	103,819	101,134	307,346	304,272
Occupancy	15,362	14,187	42,379	46,178
Equipment	5,319	6,003	16,161	17,514
Technology	14,173	14,748	42,887	46,660
Business development and advertising	5,251	5,964	20,053	18,120
Other intangible amortization	525	885	1,568	2,574
Loan expense	3,535	3,305	10,198	9,982
Legal and professional fees	4,804	4,207	14,685	13,089
Foreclosure / OREO expense, net	960	645	4,167	3,071
FDIC expense	9,000	6,000	25,500	18,500
Other	12,566	14,507	38,701	42,394
Total noninterest expense	175,314	171,585	523,645	522,354
Income before income taxes	77,454	70,989	209,187	211,316
Income tax expense	23,638	21,551	63,746	65,806
Net income	53,816	49,438	145,441	145,510
Preferred stock dividends	2,188	2,184	6,555	4,957
Net income available to common equity	$ 51,628	$ 47,254	$ 138,886	$ 140,553
Earnings per common share:				
Basic	$ 0.34	$ 0.31	$ 0.92	$ 0.93
Diluted	$ 0.34	$ 0.31	$ 0.92	$ 0.92
Average common shares outstanding:				
Basic	148,708	148,614	148,607	149,524
Diluted	149,973	149,799	149,645	150,704

See accompanying notes to consolidated financial statements.

Item 1. Financial Statements Continued:

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

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2016	2015	2016	2015
	($ in Thousands)			
Net income	$ 53,816	$ 49,438	$ 145,441	$ 145,510
Other comprehensive income (loss), net of tax:				
Investment securities available for sale:				
Net unrealized gains (losses)	(22,894)	22,907	59,849	35,101
Amortization of net unrealized gains on available for sale securities transferred to held to maturity securities	(1,441)	—	(4,465)	—
Reclassification adjustment for net (gains) losses realized in net income	13	(2,796)	(6,201)	(4,038)
Income tax (expense) benefit	9,280	(7,725)	(18,768)	(11,907)
Other comprehensive income (loss) on investment securities available for sale	(15,042)	12,386	30,415	19,156
Defined benefit pension and postretirement obligations:				
Amortization of prior service cost	(80)	12	(55)	37
Amortization of actuarial loss	621	627	1,586	1,692
Income tax expense	(206)	(243)	(584)	(659)
Other comprehensive income on pension and postretirement obligations	335	396	947	1,070
Total other comprehensive income (loss)	(14,707)	12,782	31,362	20,226
Comprehensive income	$ 39,109	$ 62,220	$ 176,803	$ 165,736

See accompanying notes to consolidated financial statements.

Item 1. Financial Statements Continued:

ASSOCIATED BANC-CORP
Consolidated Statements of Changes in Stockholders' Equity (Unaudited)

	Preferred Equity	Common Stock	Surplus	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Treasury Stock	Total
	($ in Thousands, except per share data)						
Balance, December 31, 2014	$ 59,727	$ 1,665	$ 1,484,933	$ 1,497,818	$ (4,850)	$ (239,042)	$ 2,800,251
Comprehensive income:							
Net income	—	—	—	145,510	—	—	145,510
Other comprehensive income	—	—	—	—	20,226	—	20,226
Comprehensive income							165,736
Common stock issued:							
Stock-based compensation plans, net	—	—	2,880	(21,786)	—	34,279	15,373
Acquisition of Ahmann & Martin Co.	—	26	43,504	—	—	—	43,530
Purchase of common stock returned to authorized but unissued	—	(49)	(92,951)	—	—	—	(93,000)
Purchase of treasury stock	—	—	—	—	—	(5,070)	(5,070)
Cash dividends:							
Common stock, $0.30 per share	—	—	—	(45,599)	—	—	(45,599)
Preferred stock	—	—	—	(4,957)	—	—	(4,957)
Issuance of preferred stock	62,966	—	—	—	—	—	62,966
Purchase of preferred stock	(1,209)	—	—	(126)	—	—	(1,335)
Other	(105)	—	—	(661)	—	—	(766)
Stock-based compensation expense, net	—	—	14,575	—	—	—	14,575
Tax benefit of stock-based compensation	—	—	2,093	—	—	—	2,093
Balance, September 30, 2015	$ 121,379	$ 1,642	$ 1,455,034	$ 1,570,199	$ 15,376	$ (209,833)	$ 2,953,797
Balance, December 31, 2015	$ 121,379	$ 1,642	$ 1,458,522	$ 1,593,239	$ (32,616)	$ (204,920)	$ 2,937,246
Comprehensive income:							
Net income	—	—	—	145,441	—	—	145,441
Other comprehensive income	—	—	—	—	31,362	—	31,362
Comprehensive income							176,803
Common stock issued:							
Stock-based compensation plans, net	—	—	1,785	(18,070)	—	24,034	7,749
Purchase of common stock returned to authorized but unissued	—	(12)	(19,995)	—	—	—	(20,007)
Purchase of treasury stock	—	—	—	—	—	(4,243)	(4,243)
Cash dividends:							
Common stock, $0.33 per share	—	—	—	(49,642)	—	—	(49,642)
Preferred stock	—	—	—	(6,555)	—	—	(6,555)
Issuance of preferred stock	97,066	—	—	—	—	—	97,066
Redemption of preferred stock	(57,338)	—	—	(1,565)	—	—	(58,903)
Purchase of preferred stock	(1,178)	—	—	(70)	—	—	(1,248)
Stock-based compensation expense, net	—	—	18,047	—	—	—	18,047
Tax benefit of stock-based compensation	—	—	802	—	—	—	802
Balance, September 30, 2016	$ 159,929	$ 1,630	$ 1,459,161	$ 1,662,778	$ (1,254)	$ (185,129)	$ 3,097,115

See accompanying notes to consolidated financial statements.

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

	Nine Months Ended September 30, 2016	2015
	($ in Thousands)	
CASH FLOWS FROM OPERATING ACTIVITIES		
Net income	$ 145,441	$ 145,510
Adjustments to reconcile net income to net cash provided by operating activities:		
Provision for credit losses	55,000	17,500
Depreciation and amortization	34,121	35,788
Addition to (recovery of) valuation allowance on mortgage servicing rights, net	2,486	(306)
Amortization of mortgage servicing rights	9,142	8,902
Amortization of other intangible assets	1,568	2,574
Amortization and accretion on earning assets, funding, and other, net	34,077	29,039
Tax benefit of stock based compensation	802	2,093
Gain on sales of investment securities, net	(6,201)	(4,038)
(Gain) loss on sales of assets and impairment write-downs, net	853	(2,931)
Gain on mortgage banking activities, net	(21,741)	(15,504)
Mortgage loans originated and acquired for sale	(983,930)	(911,133)
Proceeds from sales of mortgage loans held for sale	1,147,278	941,575
Increase in interest receivable	(5,809)	(3,404)
Decrease in interest payable	(5,994)	(2,642)
Net change in other assets and other liabilities	576	(19,018)
Net cash provided by operating activities	407,669	224,005
CASH FLOWS FROM INVESTING ACTIVITIES		
Net increase in loans	(1,461,884)	(935,208)
Purchases of:		
Available for sale securities	(849,466)	(2,075,062)
Held to maturity securities	(151,556)	(207,139)
Federal Home Loan Bank and Federal Reserve Bank stocks	(72,975)	(14,279)
Premises, equipment, and software, net of disposals	(90,691)	(36,778)
Other assets	(4,628)	(9,903)
Proceeds from:		
Sales of available for sale securities	359,591	1,066,957
Sales of Federal Home Loan Bank stock	80,000	42,514
Prepayments, calls, and maturities of available for sale investment securities	651,403	869,635
Prepayments, calls, and maturities of held to maturity investment securities	55,579	7,190
Sales, prepayments, calls, and maturities of other assets	19,351	17,793
Net cash (paid) received in acquisition	(685)	1,132
Net cash used in investing activities	(1,465,961)	(1,273,148)
CASH FLOWS FROM FINANCING ACTIVITIES		
Net increase in deposits	740,047	1,794,891
Net increase (decrease) in short-term funding	405,677	(45,953)
Repayment of long-term funding	(1,180,027)	(1,500,026)
Proceeds from issuance of long-term funding	1,265,000	250,000
Proceeds from issuance of common stock for stock-based compensation plans	7,749	15,373
Proceeds from issuance of preferred stock	97,066	62,966
Redemption of preferred stock	(58,903)	—
Purchase of preferred stock	(1,248)	(1,335)
Purchase of common stock returned to authorized but unissued	(20,007)	(93,000)
Purchase of treasury stock	(4,243)	(5,070)
Cash dividends on common stock	(49,642)	(45,599)
Cash dividends on preferred stock	(6,555)	(4,957)
Net cash provided by financing activities	1,194,914	427,290
Net increase (decrease) in cash and cash equivalents	136,622	(621,853)
Cash and cash equivalents at beginning of period	473,685	1,032,067
Cash and cash equivalents at end of period	$ 610,307	$ 410,214
Supplemental disclosures of cash flow information:		
Cash paid for interest	$ 68,371	$ 59,751
Cash paid for income and franchise taxes	53,126	58,975
Loans and bank premises transferred to other real estate owned	8,834	5,782
Capitalized mortgage servicing rights	8,701	9,853
Loans transferred into held for sale from portfolio, net	256,188	—
Unsettled trades to sell securities	—	139,286
Acquisition:		
Fair value of assets acquired, including cash and cash equivalents	522	4,590
Fair value ascribed to goodwill and intangible assets	4,119	51,791
Fair value of liabilities assumed	1,423	12,851
Common stock issued in acquisition	—	43,530

See accompanying notes to consolidated financial statements.

Item 1. Financial Statements Continued:

ASSOCIATED BANC-CORP
Notes to Consolidated Financial Statements

These interim consolidated financial statements have been prepared according to the rules and regulations of the Securities and Exchange Commission and, therefore, certain information and footnote disclosures normally presented in accordance with U.S. generally accepted accounting principles have been omitted or abbreviated. The information contained in the consolidated financial statements and footnotes in the Corporation's 2015 Annual Report on Form 10-K, should be referred to in connection with the reading of these unaudited interim financial statements.

Note 1 Basis of Presentation

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

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

Note 2 Acquisitions

On February 17, 2015, the Corporation acquired Ahmann & Martin Co., a risk and employee benefits consulting firm based in Minnesota. The firm was merged into Associated Financial Group, LLC ("AFG"), the Corporation's insurance brokerage subsidiary. The Corporation's acquisition of Ahmann & Martin Co. enhanced the Corporation's ability to offer clients unique, comprehensive solutions to meet their insurance and financial risk management needs. The transaction was valued at approximately $48 million with the opportunity to increase the consideration by $8 million should certain contingencies be met over a defined period.

The transaction was accounted for using the acquisition method of accounting and as such, assets acquired, liabilities assumed and consideration exchanged were recorded at their estimated fair value on the acquisition date. Goodwill from the acquisition represents the excess of the purchase price over the fair value of the net tangible and intangible assets acquired and is not deductible for tax purposes. As a result of the acquisition, the Corporation recorded goodwill of approximately $40 million and other intangible assets of approximately $12 million. Goodwill was assigned to the Corporation's Community, Consumer, and Business segment. See Note 8 for additional information on goodwill and other intangible assets.

During the first quarter of 2016, the Corporation completed two small insurance acquisitions to complement its existing insurance and benefits related products and services provided by AFG. The Corporation recorded goodwill of $3 million and other intangibles of $1 million related to these insurance acquisitions.

During the second quarter of 2016, Associated Banc-Corp announced that it has begun rebranding AFG. The rebranding follows the February 2015 acquisition of Ahmann & Martin Co. and two small insurance acquisitions during the first quarter of 2016. On September 12, 2016, Associated Banc-Corp announced the completion of state licensure filings, enabling AFG to officially rebrand its employee benefits, insurance and human resource consulting services business unit from AFG to Associated Benefits and Risk Consulting ("ABRC").

Note 3 New Accounting Pronouncements Adopted

In September 2015, the FASB issued an amendment to simplify the accounting for measurement adjustments to prior business combinations. The amendment requires that an acquirer recognize adjustments to provisional amounts that are identified during the measurement period in the reporting period in which the adjustment amounts are determined. The acquirer must record, in the same period's financial statements, the effect on earnings of changes in depreciation, amortization, or other income effects, if any, as a result of the change to the provisional amounts, calculated as if the accounting had been completed at the acquisition date. The amendment also requires an entity to present separately on the face of the income statement or disclose in the notes the portion of the amount recorded in current-period earnings by line item that would have been recorded in previous reporting periods if the adjustment to the provisional amounts had been recognized as of the acquisition date. This amendment was effective for fiscal years beginning after December 15, 2015, including interim periods within those fiscal years. The Corporation adopted the accounting standard during the first quarter of 2016, as required, and with no material impact on its results of operations, financial position, or liquidity.

In May 2015, the FASB issued an amendment to eliminate the requirement to categorize investments measured using the net asset value per share ("NAV") practical expedient in the fair value hierarchy table. Entities are required to disclose the fair value of investments measured using the NAV practical expedient so that financial statement users can reconcile amounts reported in the fair value hierarchy table to amounts reported on the balance sheet. This amendment required retrospective application and was effective for fiscal years beginning after December 15, 2015, and interim periods within those fiscal years. The Corporation adopted the accounting standard during the first quarter of 2016, as required, with no material impact on its results of operations, financial position, or liquidity.

In April 2015, the FASB issued an amendment to provide guidance to customers about whether a cloud computing arrangement included a software license. If the cloud computing arrangement includes a software license, then the customer should account for the software license element consistent with the acquisition of other software licenses. If a cloud computing arrangement does not include a software license, the customer should account for the arrangement as a service contract. This amendment was effective for annual periods, and interim periods within those annual periods, beginning after December 15, 2015. The Corporation adopted the accounting standard on a prospective basis during the first quarter of 2016, as required, and with no material impact on its results of operations, financial position, or liquidity.

In April 2015, the FASB issued an amendment to simplify the presentation of debt issuance costs. This amendment requires that debt issuance costs related to a recognized debt liability be presented in the balance sheet as a direct deduction from the carrying amount of that debt liability, consistent with debt discounts. In August 2015, the FASB expanded this amendment to include SEC staff views related to debt issuance costs associated with line-of-credit arrangements. The SEC staff would not object to an entity deferring and presenting debt issuance costs as an asset and subsequently amortizing the deferred debt issuance costs over the term of the line-of-credit arrangement, regardless of whether there are any outstanding borrowings on the line-of-credit arrangement. This amendment required retrospective application and was effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2015. The Corporation adopted the accounting standard during the first quarter of 2016. All prior periods have been restated to reflect this change in presentation, resulting in a $3 million reduction to other assets and a corresponding $3 million reduction to long-term funding on the balance sheet compared to the amounts originally reported at December 31, 2015.

In February 2015, the FASB issued an amendment to modify existing consolidation guidance for reporting companies that are required to evaluate whether they should consolidate legal entities. The new standard will place more emphasis on risk of loss when determining a controlling financial interest. Frequency in the application of related-party guidance for determining a controlling financial interest will be reduced. Also, consolidation conclusions for public and private companies among several industries that make use of limited partnerships or VIEs changed. This amendment was effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2015. The Corporation adopted the accounting standard during the first quarter of 2016, as required, and with no material impact on its results of operations, financial position, or liquidity.

In January 2015, the FASB issued an amendment to eliminate from U.S. GAAP the concept of extraordinary items. Presently, an event or transaction is presumed to be an ordinary and usual activity of the reporting entity unless evidence clearly supports its classification as an extraordinary item. If an event or transaction meets the criteria for extraordinary classification, an entity is required to segregate the extraordinary item from the results of ordinary operations and show the item separately in the income statement, net of tax, after income from continuing operations. The amended guidance prohibits separate disclosure of extraordinary items in the income statement. This amendment was effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2015. The Corporation adopted the accounting standard during the first quarter of 2016, as required, with no material impact.

In June 2014, the FASB issued an amendment to the stock compensation accounting guidance to clarify that a performance target that affects vesting of a share-based payment and that could be achieved after the requisite service period be treated as a performance condition. As such, the performance target should not be reflected in estimating the grant-date fair value of the award. Compensation cost should be recognized in the period in which it becomes probable that the performance target will be achieved and should represent the compensation cost attributable to the period(s) for which the requisite service has already been rendered. This amendment was effective for annual reporting periods, including interim periods within those annual periods, beginning after December 15, 2015. The Corporation adopted the accounting standard on a prospective basis during the first quarter of 2016, as required, with no material impact on its results of operations, financial position, or liquidity.

Note 4 Earnings Per Common Share

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

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2016	2015	2016	2015
	(In thousands, except per share data)			
Net income	$ 53,816	$ 49,438	$ 145,441	$ 145,510
Preferred stock dividends	(2,188)	(2,184)	(6,555)	(4,957)
Net income available to common equity	$ 51,628	$ 47,254	$ 138,886	$ 140,553
Common shareholder dividends	$ (16,431)	$ (14,927)	$ (49,077)	$ (45,149)
Unvested share-based payment awards	(177)	(164)	(565)	(450)
Undistributed earnings	$ 35,020	$ 32,163	$ 89,244	$ 94,954
Undistributed earnings allocated to common shareholders	$ 34,645	$ 31,813	$ 88,294	$ 93,961
Undistributed earnings allocated to unvested share-based payment awards	375	350	950	993
Undistributed earnings	$ 35,020	$ 32,163	$ 89,244	$ 94,954
Basic				
Distributed earnings to common shareholders	$ 16,431	$ 14,927	$ 49,077	$ 45,149
Undistributed earnings allocated to common shareholders	34,645	31,813	88,294	93,961
Total common shareholders earnings, basic	$ 51,076	$ 46,740	$ 137,371	$ 139,110
Diluted				
Distributed earnings to common shareholders	$ 16,431	$ 14,927	$ 49,077	$ 45,149
Undistributed earnings allocated to common shareholders	34,645	31,813	88,294	93,961
Total common shareholders earnings, diluted	$ 51,076	$ 46,740	$ 137,371	$ 139,110
Weighted average common shares outstanding	148,708	148,614	148,607	149,524
Effect of dilutive common stock awards	1,265	1,185	1,038	1,180
Diluted weighted average common shares outstanding	149,973	149,799	149,645	150,704
Basic earnings per common share	$ 0.34	$ 0.31	$ 0.92	$ 0.93
Diluted earnings per common share	$ 0.34	$ 0.31	$ 0.92	$ 0.92

Options to purchase approximately 1 million shares were outstanding for both the three and nine months ended September 30, 2016 and September 30, 2015, respectively, but excluded from the calculation of diluted earnings per common share as the effect would have been anti-dilutive. Warrants to purchase approximately 4 million shares were outstanding for both the three and nine months ended September 30, 2016 and 2015, respectively, but excluded from the calculation of diluted earnings per common shares as the effect would have been anti-dilutive.

Note 5 Stock-Based Compensation

Stock-Based Compensation Plan:

In March 2013, the Board of Directors, with subsequent approval of the Corporation's shareholders, approved the adoption of the 2013 Incentive Compensation Plan ("2013 Plan"). Under the 2013 Plan, options are generally exercisable up to 10 years from the date of grant, have an exercise price that is equal to the closing price of the Corporation's stock on the grant date, and vest ratably over four years. The 2013 Plan also provides for the issuance of restricted common stock and restricted common stock units to certain key employees (collectively referred to as "restricted stock awards"). The shares of restricted stock are restricted as to transfer, but are not restricted as to dividend payment or voting rights. Restricted stock units receive dividend equivalents but do not have voting rights. The transfer restrictions lapse over three or four years, depending upon whether the awards are service-based or performance-based. Service-based awards are contingent upon continued employment or meeting the requirements for retirement, and performance-based awards are based on earnings per share performance goals, relative total shareholder return, and continued employment or meeting the requirements for retirement. The 2013 Plan provides that restricted stock awards and stock options will immediately become fully vested upon retirement from the Corporation of those colleagues whose retirement meets the early retirement or normal retirement definitions under the plan ("retirement eligible colleagues").

Accounting for Stock-Based Compensation:

The fair value of stock options granted is estimated on the date of grant using a Black-Scholes option pricing model, while the fair value of restricted stock awards is their fair market value on the date of grant. The fair values of stock options and restricted stock awards are amortized as compensation expense on a straight-line basis over the vesting period of the grants. For retirement eligible colleagues, expenses related to stock options and restricted stock awards are fully recognized on the date the colleague meets the definition of normal or early retirement. Compensation expense recognized is included in personnel expense in the consolidated statements of income.

Assumptions are used in estimating the fair value of stock options granted. The weighted average expected life of the stock option represents the period of time that stock options are expected to be outstanding and is estimated using historical data of stock option exercises and forfeitures. The risk-free interest rate is based on the U.S. Treasury yield curve in effect at the time of grant. The expected volatility is based on the implied volatility of the Corporation's stock. The following assumptions were used in estimating the fair value for options granted in the first nine months of 2016 and full year 2015.

	2016	2015
Dividend yield	2.50%	2.00%
Risk-free interest rate	2.00%	2.00%
Weighted average expected volatility	25.00%	20.00%
Weighted average expected life	5.5 years	6.0 years
Weighted average per share fair value of options	$3.36	$3.08

The Corporation is required to estimate potential forfeitures of stock grants and adjust compensation expense recorded accordingly. The estimate of forfeitures will be adjusted over the requisite service period to the extent that actual forfeitures differ, or are expected to differ, from such estimates. Changes in estimated forfeitures will be recognized in the period of change and will also impact the amount of stock-based compensation expense to be recognized in future periods.

A summary of the Corporation's stock option activity for the year ended December 31, 2015, and the nine months ended September 30, 2016 is presented below.

Stock Options	Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term	Aggregate Intrinsic Value (000s)
Outstanding at December 31, 2014	7,847,338	$ 18.34		
Granted	1,348,504	17.95		
Exercised	(1,351,646)	13.90		
Forfeited or expired	(1,215,053)	29.13		
Outstanding at December 31, 2015	6,629,143	$ 17.22	6.24	$ 18,730
Options Exercisable at December 31, 2015	4,190,245	$ 17.25	4.93	$ 14,873
Granted	1,302,298	$ 17.45		
Exercised	(466,779)	14.15		
Forfeited or expired	(181,552)	21.61		
Outstanding at September 30, 2016	7,283,110	$ 17.35	6.18	$ 23,503
Options Exercisable at September 30, 2016	4,558,016	$ 17.31	4.76	$ 17,635

Intrinsic value represents the amount by which the fair market value of the underlying stock exceeds the exercise price of the stock option. For the nine months ended September 30, 2016, the intrinsic value of stock options exercised was approximately $2 million. For the year ended December 31, 2015 the intrinsic value of the stock options exercised was $7 million. The total fair value of stock options that vested were $3 million and $6 million, respectively, for the nine months ended September 30, 2016 and for the year ended December 31, 2015. The Corporation recognized compensation expense for the vesting of stock options of $3 million and $4 million for the nine months ended September 30, 2016 and year ended December 31, 2015, respectively. Included in compensation expense for the nine months ended September 30, 2016 was approximately $923,000 of expense for the accelerated vesting of stock options granted to retirement eligible colleagues. At September 30, 2016, the Corporation had $6 million of unrecognized compensation expense related to stock options that is expected to be recognized over the remaining requisite service periods that extend predominantly through the fourth quarter 2019.

The following table summarizes information about the Corporation's restricted stock activity for the year ended December 31, 2015, and for the nine months ended September 30, 2016.

Restricted Stock	Shares		Weighted Average Grant Date Fair Value
Outstanding at December 31, 2014	1,982,126	$	15.79
Granted	1,173,847		18.09
Vested	(709,582)		15.62
Forfeited	(196,363)		16.87
Outstanding at December 31, 2015	2,250,028	$	17.03
Granted	1,073,057	$	17.48
Vested	(831,433)		16.61
Forfeited	(94,725)		17.60
Outstanding at September 30, 2016	2,396,927	$	17.35

The Corporation amortizes the expense related to restricted stock awards as compensation expense over the vesting period specified in the grant. Performance-based restricted stock awards granted during 2015 and 2016 will vest ratably over a three year period, while service-based restricted stock awards granted during 2015 and 2016 will vest ratably over a four year period. Expense for restricted stock awards of approximately $15 million was recorded for both the nine months ended September 30, 2016 and for the year ended December 31, 2015. Included in compensation expense for the nine months ended 2016 was approximately $3 million of expense for the accelerated vesting of restricted stock awards granted to retirement eligible colleagues. The Corporation had $24 million of unrecognized compensation costs related to restricted stock awards at September 30, 2016, that is expected to be recognized over the remaining requisite service periods that extend predominantly through fourth quarter 2019.

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

Note 6 Investment Securities

Investment securities are generally classified as available for sale or held to maturity at the time of purchase. The majority of the Corporation's investment securities are mortgage-related securities issued by the Government National Mortgage Association ("GNMA") or government-sponsored enterprises ("GSE") such as the Federal National Mortgage Association ("FNMA") and the Federal Home Loan Mortgage Corporation ("FHLMC"). The amortized cost and fair values of securities available for sale and held to maturity were as follows.

September 30, 2016	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
	($ in Thousands)			
Investment securities available for sale:				
U. S. Treasury securities	$ 1,000	$ 1	$ —	$ 1,001
Residential mortgage-related securities:				
FNMA / FHLMC	882,951	29,941	(32)	912,860
GNMA	1,798,096	14,183	(750)	1,811,529
Private-label	1,215	—	(15)	1,200
GNMA commercial mortgage-related securities	2,121,913	4,218	(11,462)	2,114,669
Other securities (debt and equity)	4,718	111	—	4,829
Total investment securities available for sale	$ 4,809,893	$ 48,454	$ (12,259)	$ 4,846,088
Investment securities held to maturity:				
Obligations of state and political subdivisions (municipal securities)	$ 1,129,056	$ 31,897	$ (233)	$ 1,160,720
Residential mortgage-related securities:				
FNMA / FHLMC	38,297	1,009	(16)	39,290
GNMA	86,141	1,703	(24)	87,820
Total investment securities held to maturity	$ 1,253,494	$ 34,609	$ (273)	$ 1,287,830

December 31, 2015	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
	($ in Thousands)			
Investment securities available for sale:				
U. S. Treasury securities	$ 999	$ —	$ (2)	$ 997
Residential mortgage-related securities:				
FNMA / FHLMC	1,388,995	33,791	(8,160)	1,414,626
GNMA	1,605,956	507	(16,460)	1,590,003
Private-label	1,722	1	(14)	1,709
GNMA commercial mortgage-related securities	1,982,477	1,334	(28,501)	1,955,310
Other securities (debt and equity)	4,718	51	—	4,769
Total investment securities available for sale	$ 4,984,867	$ 35,684	$ (53,137)	$ 4,967,414
Investment securities held to maturity:				
Municipal securities	$ 1,043,767	$ 16,803	$ (339)	$ 1,060,231
Residential mortgage-related securities:				
FNMA / FHLMC	41,469	513	(645)	41,337
GNMA	82,994	189	(309)	82,874
Total investment securities held to maturity	$ 1,168,230	$ 17,505	$ (1,293)	$ 1,184,442

The amortized cost and fair values of investment securities available for sale and held to maturity at September 30, 2016, are shown below. Expected maturities will differ from contractual maturities because borrowers may have the right to call or prepay obligations with or without call or prepayment penalties.

	Available for Sale		Held to Maturity	
($ in Thousands)	Amortized Cost	Fair Value	Amortized Cost	Fair Value
Due in one year or less	$ 4,500	$ 4,535	$ 38,786	$ 27,004
Due after one year through five years	1,200	1,200	250,221	260,817
Due after five years through ten years	—	—	234,104	243,746
Due after ten years	—	—	605,945	629,153
Total debt securities	5,700	5,735	1,129,056	1,160,720
Residential mortgage-related securities:				
FNMA / FHLMC	882,951	912,860	38,297	39,290
GNMA	1,798,096	1,811,529	86,141	87,820
Private-label	1,215	1,200	—	—
GNMA commercial mortgage-related securities	2,121,913	2,114,669	—	—
Equity securities	18	95	—	—
Total investment securities	$ 4,809,893	$ 4,846,088	$ 1,253,494	$ 1,287,830
Ratio of Fair Value to Amortized Cost		100.8%		102.7%

During the first nine months of 2016, the Corporation sold approximately $360 million of FNMA and FHLMC mortgage-related securities and reinvested into GNMA mortgage-related securities, generating a $6 million net gain on sale. This sale of FNMA and FHLMC mortgage-related securities and the subsequent purchase of GNMA mortgage-related securities lowered risk weighted assets and related capital requirements.

	Nine Months Ended September 30,	
	2016	2015
	($ in Thousands)	
Gross gains	$ 6,403	$ 8,047
Gross losses	(202)	(4,009)
Investment securities gains, net	$ 6,201	$ 4,038
Proceeds from sales of investment securities	$ 359,591	$ 1,206,242

Securities with a carrying value of approximately $2.6 billion and $3.2 billion at September 30, 2016, and December 31, 2015, respectively, were pledged to secure certain deposits or for other purposes as required or permitted by law.

The following represents gross unrealized losses and the related fair value of investment securities available for sale and held to maturity, aggregated by investment category and length of time individual securities have been in a continuous unrealized loss position, at September 30, 2016.

	Less than 12 months			12 months or more			Total	
	Number of Securities	Unrealized Losses	Fair Value	Number of Securities	Unrealized Losses	Fair Value	Unrealized Losses	Fair Value
	($ in Thousands)							
Investment securities available for sale:								
Residential mortgage-related securities:								
FNMA / FHLMC	3	$ (32)	$ 14,694	—	$ —	$ —	$ (32)	$ 14,694
GNMA	8	(750)	280,378	—	—	—	(750)	280,378
Private-label	—	—	—	1	(15)	1,197	(15)	1,197
GNMA commercial mortgage-related securities	40	(2,035)	828,434	21	(9,427)	466,898	(11,462)	1,295,332
Total	51	$ (2,817)	$1,123,506	22	$ (9,442)	$ 468,095	$ (12,259)	$1,591,601
Investment securities held to maturity:								
Municipal securities	37	$ (224)	$ 37,317	4	$ (9)	$ 1,842	$ (233)	$ 39,159
Residential mortgage-related securities:								
FNMA / FHLMC	1	(8)	1,108	1	(8)	6,834	(16)	7,942
GNMA	5	(24)	6,317	—	—	—	(24)	6,317
Total	43	$ (256)	$ 44,742	5	$ (17)	$ 8,676	$ (273)	$ 53,418

For comparative purposes, the following represents gross unrealized losses and the related fair value of investment securities available for sale and held to maturity, aggregated by investment category and length of time that individual securities have been in a continuous unrealized loss position, at December 31, 2015.

	Less than 12 months			12 months or more			Total	
	Number of Securities	Unrealized Losses	Fair Value	Number of Securities	Unrealized Losses	Fair Value	Unrealized Losses	Fair Value
	($ in Thousands)							
Investment securities available for sale:								
U.S. Treasury securities	1	$ (2)	$ 997	—	$ —	$ —	$ (2)	$ 997
Residential mortgage-related securities:								
FNMA / FHLMC	17	(1,548)	220,852	14	(6,612)	338,186	(8,160)	559,038
GNMA	46	(16,460)	1,434,484	—	—	—	(16,460)	1,434,484
Private-label	1	(1)	83	3	(13)	1,565	(14)	1,648
GNMA commercial mortgage-related securities	40	(9,610)	1,132,844	21	(18,891)	448,218	(28,501)	1,581,062
Total	105	$ (27,621)	$2,789,260	38	$ (25,516)	$ 787,969	$ (53,137)	$3,577,229
Investment securities held to maturity:								
Municipal securities	53	$ (146)	$ 23,137	24	$ (193)	$ 9,254	$ (339)	$ 32,391
Residential mortgage-related securities:								
FNMA / FHLMC	10	(177)	12,754	3	(468)	11,106	(645)	23,860
GNMA	21	(201)	45,499	3	(108)	6,797	(309)	52,296
Total	84	$ (524)	$ 81,390	30	$ (769)	$ 27,157	$ (1,293)	$ 108,547

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

Based on the Corporation's evaluation, management does not believe any unrealized loss at September 30, 2016, represents an other-than-temporary impairment as these unrealized losses are primarily attributable to changes in interest rates and the current market conditions, and not credit deterioration. The unrealized losses reported for municipal securities relate to various state and local political subdivisions and school districts. The Corporation currently does not intend to sell nor does it believe that it will be required to sell the securities contained in the above unrealized losses table before recovery of their amortized cost basis. The reduction in unrealized losses at September 30, 2016 is due to the reduction in overall interest rates. The U.S. Treasury 3-year and 5-year rates dropped by 43 basis points ("bp") and 62 bp, respectively, from December 31, 2015.

Federal Home Loan Bank ("FHLB") and Federal Reserve Bank Stocks: The Corporation is required to maintain Federal Reserve stock and FHLB stock as a member of both the Federal Reserve System and the FHLB, and in amounts as required by these institutions. These equity securities are "restricted" in that they can only be sold back to the respective institutions or another member institution at par. Therefore, they are less liquid than other marketable equity securities and their fair value is equal to amortized cost. At September 30, 2016, and December 31, 2015, the Corporation had FHLB stock of $65 million and $74 million, respectively. The Corporation had Federal Reserve Bank stock of $75 million and $73 million at September 30, 2016 and December 31, 2015, respectively.

Note 7 Loans

The period end loan composition was as follows.

	September 30, 2016	December 31, 2015
	($ in Thousands)	
Commercial and industrial	$ 6,721,557	$ 6,190,683
Commercial real estate — owner occupied	892,678	918,212
Commercial and business lending	7,614,235	7,108,895
Commercial real estate — investor	3,530,370	3,234,266
Real estate construction	1,314,431	1,162,145
Commercial real estate lending	4,844,801	4,396,411
Total commercial	12,459,036	11,505,306
Residential mortgage	6,034,166	5,783,267
Home equity	951,594	1,005,802
Other consumer	399,209	419,968
Total consumer	7,384,969	7,209,037
Total loans	$ 19,844,005	$ 18,714,343

The following table presents commercial and consumer loans by credit quality indicator at September 30, 2016.

	Pass	Special Mention	Potential Problem	Nonaccrual	Total
			($ in Thousands)		
Commercial and industrial	$ 5,983,940	$ 180,425	$ 351,290	$ 205,902	$ 6,721,557
Commercial real estate - owner occupied	791,951	46,345	47,387	6,995	892,678
Commercial and business lending	6,775,891	226,770	398,677	212,897	7,614,235
Commercial real estate - investor	3,480,535	5,042	36,765	8,028	3,530,370
Real estate construction	1,303,013	8,625	1,929	864	1,314,431
Commercial real estate lending	4,783,548	13,667	38,694	8,892	4,844,801
Total commercial	11,559,439	240,437	437,371	221,789	12,459,036
Residential mortgage	5,973,633	3,832	3,226	53,475	6,034,166
Home equity	936,443	726	78	14,347	951,594
Other consumer	398,481	428	—	300	399,209
Total consumer	7,308,557	4,986	3,304	68,122	7,384,969
Total loans	$ 18,867,996	$ 245,423	$ 440,675	$ 289,911	$ 19,844,005

The following table presents commercial and consumer loans by credit quality indicator at December 31, 2015.

	Pass	Special Mention	Potential Problem	Nonaccrual	Total
			($ in Thousands)		
Commercial and industrial	$ 5,522,809	$ 341,169	$ 233,130	$ 93,575	$ 6,190,683
Commercial real estate - owner occupied	835,572	38,885	35,706	8,049	918,212
Commercial and business lending	6,358,381	380,054	268,836	101,624	7,108,895
Commercial real estate - investor	3,153,703	45,976	25,944	8,643	3,234,266
Real estate construction	1,157,034	252	3,919	940	1,162,145
Commercial real estate lending	4,310,737	46,228	29,863	9,583	4,396,411
Total commercial	10,669,118	426,282	298,699	111,207	11,505,306
Residential mortgage	5,727,437	1,552	2,796	51,482	5,783,267
Home equity	988,574	1,762	222	15,244	1,005,802
Other consumer	419,087	556	—	325	419,968
Total consumer	7,135,098	3,870	3,018	67,051	7,209,037
Total loans	$ 17,804,216	$ 430,152	$ 301,717	$ 178,258	$ 18,714,343

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

For commercial loans, management has determined the pass credit quality indicator to include credits that exhibit acceptable financial statements, cash flow, and leverage. If any risk exists, it is mitigated by the loan structure, collateral, monitoring, or control. For consumer loans, performing loans include credits that are performing in accordance with the original contractual terms. Loans are considered past due if the required principal and interest payments have not been received as of the date such payments were due. Special mention credits have potential weaknesses that deserve management's attention. If left uncorrected, these potential weaknesses may result in deterioration of the repayment prospects for the credit. Potential problem loans are considered inadequately protected by the current net worth and paying capacity of the obligor or the collateral pledged. These loans generally have a well-defined weakness, or weaknesses, that may jeopardize liquidation of the debt and are characterized by the distinct possibility that the Corporation will sustain some loss if the deficiencies are not corrected. Lastly, management considers a loan to be impaired when it is probable that the Corporation will be unable to collect all amounts due according to the original contractual terms of the note agreement, including both principal and interest. Management has determined that commercial and consumer loan relationships that have nonaccrual status or have had their terms restructured in a troubled debt restructuring meet this impaired loan definition. Commercial loans classified as special mention, potential problem, and nonaccrual loans are reviewed at a minimum on a quarterly basis, while pass rated credits are reviewed on an annual basis or more frequently if the loan renewal is less than one year or if otherwise warranted.

The following table presents loans by past due status at September 30, 2016.

	Current	30-59 Days Past Due	60-89 Days Past Due	90 Days or More Past Due [(a)]	Nonaccrual [(b)]	Total
	($ in Thousands)					
Commercial and industrial	$ 6,514,451	$ 576	$ 374	$ 254	$ 205,902	$ 6,721,557
Commercial real estate - owner occupied	884,814	754	115	—	6,995	892,678
Commercial and business lending	7,399,265	1,330	489	254	212,897	7,614,235
Commercial real estate - investor	3,521,712	17	613	—	8,028	3,530,370
Real estate construction	1,313,165	337	65	—	864	1,314,431
Commercial real estate lending	4,834,877	354	678	—	8,892	4,844,801
Total commercial	12,234,142	1,684	1,167	254	221,789	12,459,036
Residential mortgage	5,973,994	6,407	290	—	53,475	6,034,166
Home equity	931,774	4,627	846	—	14,347	951,594
Other consumer	395,606	1,499	547	1,257	300	399,209
Total consumer	7,301,374	12,533	1,683	1,257	68,122	7,384,969
Total loans	$ 19,535,516	$ 14,217	$ 2,850	$ 1,511	$ 289,911	$ 19,844,005

(a) The recorded investment in loans past due 90 days or more and still accruing totaled $2 million at September 30, 2016 (the same as the reported balances for the accruing loans noted above).

(b) Of the total nonaccrual loans, $215 million or 74% were current with respect to payment at September 30, 2016.

The following table presents loans by past due status at December 31, 2015.

	Current	30-59 Days Past Due	60-89 Days Past Due	90 Days or More Past Due [(a)]	Nonaccrual [(b)]	Total
	($ in Thousands)					
Commercial and industrial	$ 6,095,848	$ 602	$ 409	$ 249	$ 93,575	$ 6,190,683
Commercial real estate - owner occupied	903,021	7,142	—	—	8,049	918,212
Commercial and business lending	6,998,869	7,744	409	249	101,624	7,108,895
Commercial real estate - investor	3,225,332	291	—	—	8,643	3,234,266
Real estate construction	1,160,909	270	26	—	940	1,162,145
Commercial real estate lending	4,386,241	561	26	—	9,583	4,396,411
Total commercial	11,385,110	8,305	435	249	111,207	11,505,306
Residential mortgage	5,726,855	4,491	439	—	51,482	5,783,267
Home equity	982,639	6,190	1,729	—	15,244	1,005,802
Other consumer	416,374	1,195	675	1,399	325	419,968
Total consumer	7,125,868	11,876	2,843	1,399	67,051	7,209,037
Total loans	$ 18,510,978	$ 20,181	$ 3,278	$ 1,648	$ 178,258	$ 18,714,343

(a) The recorded investment in loans past due 90 days or more and still accruing totaled $2 million at December 31, 2015 (the same as the reported balances for the accruing loans noted above).

(b) Of the total nonaccrual loans, $124 million or 69% were current with respect to payment at December 31, 2015.

The following table presents impaired loans at September 30, 2016.

	Recorded Investment	Unpaid Principal Balance	Related Allowance	Average Recorded Investment	Interest Income Recognized
			($ in Thousands)		
Loans with a related allowance					
Commercial and industrial	$ 61,219	$ 65,586	$ 9,293	$ 61,337	$ 1,228
Commercial real estate — owner occupied	8,721	10,641	319	9,133	262
Commercial and business lending	69,940	76,227	9,612	70,470	1,490
Commercial real estate — investor	17,154	17,601	629	21,450	1,405
Real estate construction	1,229	1,626	449	1,301	49
Commercial real estate lending	18,383	19,227	1,078	22,751	1,454
Total commercial	88,323	95,454	10,690	93,221	2,944
Residential mortgage	65,381	70,568	12,087	66,845	1,734
Home equity	21,382	23,277	10,162	22,654	862
Other consumer	1,226	1,288	211	1,268	22
Total consumer	87,989	95,133	22,460	90,767	2,618
Total loans	$ 176,312	$ 190,587	$ 33,150	$ 183,988	$ 5,562
Loans with no related allowance					
Commercial and industrial	$ 174,931	$ 221,213	$ —	$ 179,696	$ 1,227
Commercial real estate — owner occupied	5,719	6,472	—	5,906	—
Commercial and business lending	180,650	227,685	—	185,602	1,227
Commercial real estate — investor	6,226	6,501	—	7,393	—
Real estate construction	—	—	—	—	—
Commercial real estate lending	6,226	6,501	—	7,393	—
Total commercial	186,876	234,186	—	192,995	1,227
Residential mortgage	6,143	6,289	—	6,206	133
Home equity	650	650	—	651	23
Other consumer	—	—	—	—	—
Total consumer	6,793	6,939	—	6,857	156
Total loans	$ 193,669	$ 241,125	$ —	$ 199,852	$ 1,383
Total					
Commercial and industrial	$ 236,150	$ 286,799	$ 9,293	$ 241,033	$ 2,455
Commercial real estate — owner occupied	14,440	17,113	319	15,039	262
Commercial and business lending	250,590	303,912	9,612	256,072	2,717
Commercial real estate — investor	23,380	24,102	629	28,843	1,405
Real estate construction	1,229	1,626	449	1,301	49
Commercial real estate lending	24,609	25,728	1,078	30,144	1,454
Total commercial	275,199	329,640	10,690	286,216	4,171
Residential mortgage	71,524	76,857	12,087	73,051	1,867
Home equity	22,032	23,927	10,162	23,305	885
Other consumer	1,226	1,288	211	1,268	22
Total consumer	94,782	102,072	22,460	97,624	2,774
Total impaired loans[(a)]	$ 369,981	$ 431,712	$ 33,150	$ 383,840	$ 6,945

(a) The net recorded investment (defined as recorded investment, net of the related allowance) of the impaired loans represented 78% of the unpaid principal balance at September 30, 2016.

The following table presents impaired loans at December 31, 2015.

	Recorded Investment	Unpaid Principal Balance	Related Allowance	Average Recorded Investment	Interest Income Recognized
			($ in Thousands)		
Loans with a related allowance					
Commercial and industrial	$ 57,785	$ 59,409	$ 8,162	$ 46,833	$ 855
Commercial real estate — owner occupied	9,705	9,804	448	10,087	412
Commercial and business lending	67,490	69,213	8,610	56,920	1,267
Commercial real estate — investor	27,822	29,444	1,831	28,278	1,914
Real estate construction	1,450	2,154	453	1,667	66
Commercial real estate lending	29,272	31,598	2,284	29,945	1,980
Total commercial	96,762	100,811	10,894	86,865	3,247
Residential mortgage	66,590	71,084	12,462	68,183	2,374
Home equity	21,769	23,989	10,118	22,624	1,147
Other consumer	1,154	1,225	195	1,199	30
Total consumer	89,513	96,298	22,775	92,006	3,551
Total loans	$ 186,275	$ 197,109	$ 33,669	$ 178,871	$ 6,798
Loans with no related allowance					
Commercial and industrial	$ 65,083	$ 72,259	$ —	$ 79,573	$ 1,657
Commercial real estate — owner occupied	6,221	6,648	—	6,534	15
Commercial and business lending	71,304	78,907	—	86,107	1,672
Commercial real estate — investor	2,736	2,840	—	2,763	90
Real estate construction	—	—	—	—	—
Commercial real estate lending	2,736	2,840	—	2,763	90
Total commercial	74,040	81,747	—	88,870	1,762
Residential mortgage	4,762	5,033	—	4,726	126
Home equity	544	544	—	544	30
Other consumer	—	—	—	—	—
Total consumer	5,306	5,577	—	5,270	156
Total loans	$ 79,346	$ 87,324	$ —	$ 94,140	$ 1,918
Total					
Commercial and industrial	$ 122,868	$ 131,668	$ 8,162	$ 126,406	$ 2,512
Commercial real estate — owner occupied	15,926	16,452	448	16,621	427
Commercial and business lending	138,794	148,120	8,610	143,027	2,939
Commercial real estate — investor	30,558	32,284	1,831	31,041	2,004
Real estate construction	1,450	2,154	453	1,667	66
Commercial real estate lending	32,008	34,438	2,284	32,708	2,070
Total commercial	170,802	182,558	10,894	175,735	5,009
Residential mortgage	71,352	76,117	12,462	72,909	2,500
Home equity	22,313	24,533	10,118	23,168	1,177
Other consumer	1,154	1,225	195	1,199	30
Total consumer	94,819	101,875	22,775	97,276	3,707
Total impaired loans[(a)]	$ 265,621	$ 284,433	$ 33,669	$ 273,011	$ 8,716

(a) The net recorded investment (defined as recorded investment, net of the related allowance) of the impaired loans represented 82% of the unpaid principal balance at December 31, 2015.

Troubled Debt Restructurings ("Restructured Loans"):

Loans are considered restructured loans if concessions have been granted to borrowers that are experiencing financial difficulty. See Note 1 "Summary of Significant Accounting Policies," in the Corporation's 2015 Annual Report on Form 10-K for the Corporation's accounting policy for troubled debt restructurings. The Corporation had a recorded investment of $9 million in loans modified in troubled debt restructurings for the nine months ended September 30, 2016, of which approximately $4 million was in accrual status and $5 million was in nonaccrual pending a sustained period of repayment. The following table presents nonaccrual and performing restructured loans by loan portfolio.

	September 30, 2016		December 31, 2015	
	Performing Restructured Loans	Nonaccrual Restructured Loans[(a)]	Performing Restructured Loans	Nonaccrual Restructured Loans[(a)]
	($ in Thousands)			
Commercial and industrial	$ 30,248	$ 2,398	$ 29,293	$ 1,714
Commercial real estate — owner occupied	7,445	2,275	7,877	2,703
Commercial real estate — investor	15,352	941	21,915	3,936
Real estate construction	365	154	510	177
Residential mortgage	18,049	22,743	19,870	24,592
Home equity	7,685	3,209	7,069	4,522
Other consumer	926	38	829	40
Total restructured loans	$ 80,070	$ 31,758	$ 87,363	$ 37,684

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

The following table provides the number of loans modified in a troubled debt restructuring by loan portfolio during the nine months ended September 30, 2016 and 2015, and the recorded investment and unpaid principal balance as of September 30, 2016 and 2015.

	Nine Months Ended September 30, 2016			Nine Months Ended September 30, 2015		
	Number of Loans	Recorded Investment[(a)]	Unpaid Principal Balance[(b)]	Number of Loans	Recorded Investment[(a)]	Unpaid Principal Balance[(b)]
	($ in Thousands)					
Commercial and industrial	10	$ 2,455	$ 2,517	10	$ 2,410	$ 3,033
Commercial real estate — owner occupied	1	117	124	4	2,847	3,007
Commercial real estate — investor	—	—	—	3	2,949	2,998
Real estate construction	1	66	91	1	5	5
Residential mortgage	56	4,676	4,922	77	7,393	7,586
Home equity	47	1,709	1,793	61	2,109	2,220
Other consumer	1	15	16	—	—	—
Total	116	$ 9,038	$ 9,463	156	$ 17,713	$ 18,849

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

Restructured loan modifications may include payment schedule modifications, interest rate concessions, maturity date extensions, modification of note structure (A/B Note), non-reaffirmed Chapter 7 bankruptcies, principal reduction, or some combination of these concessions. During the nine months ended September 30, 2016, restructured loan modifications of commercial and industrial, commercial real estate, and real estate construction loans primarily included maturity date extensions, interest rate concessions, payment schedule modifications, or a combination of these concessions. Restructured loan modifications of home equity and residential mortgage loans primarily included maturity date extensions, interest rate concessions, non-reaffirmed Chapter 7 bankruptcies, or a combination of these concessions for the nine months ended September 30, 2016.

The following table provides the number of loans modified in a troubled debt restructuring during the previous twelve months which subsequently defaulted during the nine months ended September 30, 2016 and 2015, as well as the recorded investment in these restructured loans as of September 30, 2016 and 2015.

	Nine Months Ended September 30, 2016		Nine Months Ended September 30, 2015	
	Number of Loans	Recorded Investment	Number of Loans	Recorded Investment
	($ in Thousands)			
Commercial and industrial	—	$ —	1	$ 153
Commercial real estate — owner occupied	—	—	1	297
Residential mortgage	36	3,310	45	4,176
Home equity	12	182	21	627
Other consumer	1	15	—	—
Total	49	$ 3,507	68	$ 5,253

All loans modified in a troubled debt restructuring are evaluated for impairment. The nature and extent of the impairment of restructured loans, including those which have experienced a subsequent payment default, is considered in the determination of an appropriate level of the allowance for loan losses.

A summary of the changes in the allowance for loan losses by portfolio segment for the nine months ended September 30, 2016, was as follows.

$ in Thousands	Commercial and industrial	Commercial real estate - owner occupied	Commercial real estate - investor	Real estate construction	Residential mortgage	Home equity	Other consumer	Total
December 31, 2015	$ 129,959	$ 18,680	$ 43,018	$ 25,266	$ 28,261	$ 23,555	$ 5,525	$ 274,264
Charge offs	(63,368)	(265)	(1,495)	(380)	(3,035)	(3,434)	(2,853)	(74,830)
Recoveries	13,461	48	1,610	111	506	2,730	640	19,106
Net charge offs	(49,907)	(217)	115	(269)	(2,529)	(704)	(2,213)	(55,724)
Provision for loan losses	57,051	(4,106)	(2,366)	(1,873)	1,121	(897)	2,070	51,000
September 30, 2016	$ 137,103	$ 14,357	$ 40,767	$ 23,124	$ 26,853	$ 21,954	$ 5,382	$ 269,540
Allowance for loan losses:								
Individually evaluated for impairment	$ 8,570	$ —	$ 79	$ —	$ 976	$ —	$ —	$ 9,625
Collectively evaluated for impairment	128,533	14,357	40,688	23,124	25,877	21,954	5,382	259,915
Total allowance for loan losses	$ 137,103	$ 14,357	$ 40,767	$ 23,124	$ 26,853	$ 21,954	$ 5,382	$ 269,540
Loans:								
Individually evaluated for impairment	$ 203,834	$ 5,719	$ 7,023	$ —	$ 9,389	$ 650	$ —	$ 226,615
Collectively evaluated for impairment	6,517,723	886,959	3,523,347	1,314,431	6,024,777	950,944	399,209	19,617,390
Total loans	$ 6,721,557	$ 892,678	$ 3,530,370	$ 1,314,431	$ 6,034,166	$ 951,594	$ 399,209	$ 19,844,005

The allowance for credit losses is comprised of the allowance for loan losses and the allowance for unfunded commitments. The level of the allowance for loan losses represents management's estimate of an amount appropriate to provide for probable credit losses in the loan portfolio at the balance sheet date. The allowance for unfunded commitments is maintained at a level believed by management to be sufficient to absorb estimated probable losses related to unfunded credit facilities (including unfunded loan commitments and letters of credit) and is included in accrued expenses and other liabilities on the consolidated balance sheets. See Note 12 for additional information on the allowance for unfunded commitments.

For comparison purposes, a summary of the changes in the allowance for loan losses by portfolio segment for the year ended December 31, 2015, was as follows.

$ in Thousands	Commercial and industrial	Commercial real estate - owner occupied	Commercial real estate - investor	Real estate construction	Residential mortgage	Home equity	Other consumer	Total
December 31, 2014	$ 117,635	$ 16,510	$ 46,333	$ 20,999	$ 31,926	$ 26,464	$ 6,435	$ 266,302
Charge offs	(27,687)	(2,645)	(4,645)	(750)	(5,636)	(7,048)	(3,869)	(52,280)
Recoveries	9,821	921	4,157	2,268	1,077	3,233	765	22,242
Net charge offs	(17,866)	(1,724)	(488)	1,518	(4,559)	(3,815)	(3,104)	(30,038)
Provision for loan losses	30,190	3,894	(2,827)	2,749	894	906	2,194	38,000
December 31, 2015	$ 129,959	$ 18,680	$ 43,018	$ 25,266	$ 28,261	$ 23,555	$ 5,525	$ 274,264
Allowance for loan losses:								
Individually evaluated for impairment	$ 7,522	$ —	$ 229	$ —	$ 166	$ 46	$ —	$ 7,963
Collectively evaluated for impairment	122,437	18,680	42,789	25,266	28,095	23,509	5,525	266,301
Total allowance for loan losses	$ 129,959	$ 18,680	$ 43,018	$ 25,266	$ 28,261	$ 23,555	$ 5,525	$ 274,264
Loans:								
Individually evaluated for impairment	$ 91,569	$ 6,221	$ 5,460	$ —	$ 6,956	$ 1,281	$ —	$ 111,487
Collectively evaluated for impairment	6,099,114	911,991	3,228,806	1,162,145	5,776,311	1,004,521	419,968	18,602,856
Total loans	$ 6,190,683	$ 918,212	$ 3,234,266	$ 1,162,145	$ 5,783,267	$ 1,005,802	$ 419,968	$ 18,714,343

A summary of the changes in the allowance for unfunded commitments was as follows.

	Nine Months Ended September 30, 2016	Year Ended December 31, 2015
	($ in Thousands)	
Allowance for Unfunded Commitments:		
Balance at beginning of period	$ 24,400	$ 24,900
Provision for unfunded commitments	4,000	(500)
Balance at end of period	$ 28,400	$ 24,400

Note 8 Goodwill and Other Intangible Assets

Goodwill: Goodwill is not amortized but, instead, is subject to impairment tests on at least an annual basis, and more frequently if an event occurs or circumstances change that would more likely than not reduce the fair value of a reporting unit below its carrying amount. The impairment testing process is conducted by assigning net assets and goodwill to each reporting unit. An initial qualitative evaluation is made to assess the likelihood of impairment and determine whether further quantitative testing to calculate the fair value is necessary. When the qualitative evaluation indicates that impairment is more likely than not, quantitative testing is required whereby the fair value of each reporting unit is calculated and compared to the recorded book value, "step one." If the calculated fair value of the reporting unit exceeds its carrying value, goodwill is not considered impaired and "step two" is not considered necessary. If the carrying value of a reporting unit exceeds its calculated fair value, the impairment test continues ("step two") by comparing the carrying value of the reporting unit's goodwill to the implied fair value of goodwill. The implied fair value is computed by adjusting all assets and liabilities of the reporting unit to current fair value with the offset adjustment to goodwill. The adjusted goodwill balance is the implied fair value of the goodwill. An impairment charge is recognized if the carrying value of goodwill exceeds the implied fair value of goodwill.

The Corporation conducted its most recent annual impairment testing in May 2016, utilizing a qualitative assessment. Factors that management considered in this assessment included macroeconomic conditions, industry and market considerations, overall financial performance of the Corporation and each reporting unit (both current and projected), changes in management strategy, and changes in the composition or carrying amount of net assets. In addition, management considered the changes in both the Corporation's common stock price and in the overall bank common stock index (based on the S&P 400 Regional Bank Sub-Industry Index), as well as the Corporation's earnings per common share trend over the past year. Based on these assessments, management concluded that the 2016 annual qualitative impairment assessment indicated that it is more likely than not that the estimated fair value exceeded the carrying value (including goodwill) for each reporting unit. Therefore, a step one quantitative analysis was not required. There were no events since the May 2016 impairment testing that have changed the Corporation's impairment assessment conclusion. There were no impairment charges recorded in 2015 or the first nine months of 2016.

At September 30, 2016, the Corporation had goodwill of $972 million, compared to $969 million at December 31, 2015. There was an addition to the carrying amount of goodwill of approximately $3 million as a result of two small insurance acquisitions during the first quarter of 2016. See Note 2 for additional information on the Corporation's acquisitions.

Other Intangible Assets: The Corporation has other intangible assets that are amortized, consisting of core deposit intangibles, other intangibles (primarily related to customer relationships acquired in connection with the Corporation's insurance agency acquisitions), and mortgage servicing rights. Core deposit intangibles of approximately $15 million were fully amortized in 2015 and have been removed from both the gross carrying amount and the accumulated amortization for 2016. There was an addition to the gross carrying amount of other intangibles of $1 million for the customer relationships associated with two small insurance acquisitions that occurred during the first quarter of 2016. See Note 2 for additional information on the Corporation's acquisitions. For core deposit intangibles and other intangibles, changes in the gross carrying amount, accumulated amortization, and net book value were as follows.

	Nine Months Ended September 30, 2016	Year Ended December 31, 2015
	($ in Thousands)	
Core deposit intangibles:		
Gross carrying amount	$ 4,385	$ 19,545
Accumulated amortization	(4,203)	(19,152)
Net book value	$ 182	$ 393
Amortization during the year	$ 211	$ 1,404
Other intangibles:		
Gross carrying amount	$ 32,410	$ 31,398
Accumulated amortization	(16,690)	(15,333)
Net book value	$ 15,720	$ 16,065
Additions during the period	$ 1,012	$ 12,115
Amortization during the year	$ 1,357	$ 1,690

Mortgage Servicing Rights: The Corporation sells residential mortgage loans in the secondary market and typically retains the right to service the loans sold. Mortgage servicing rights are amortized in proportion to and over the period of estimated net servicing income, and assessed for impairment at each reporting date. Impairment is assessed based on fair value at each reporting date using estimated prepayment speeds of the underlying mortgage loans serviced and stratifications based on the risk characteristics of the underlying loans (predominantly loan type and note interest rate). As mortgage interest rates fall, prepayment speeds are usually faster and the value of the mortgage servicing rights asset generally decreases, requiring additional valuation reserve. Conversely, as mortgage interest rates rise, prepayment speeds are usually slower and the value of the mortgage servicing rights asset generally increases, requiring less valuation reserve. A valuation allowance is established, through a charge to earnings, to the extent the amortized cost of the mortgage servicing rights exceeds the estimated fair value by stratification. If it is later determined that all or a portion of the temporary impairment no longer exists for a stratification, the valuation is reduced through a recovery to earnings. An other-than-temporary impairment (i.e., recoverability is considered remote when considering interest rates and loan pay off activity) is recognized as a write-down of the mortgage servicing rights asset and the related valuation allowance (to the extent a valuation allowance is available) and then against earnings. A direct write-down permanently reduces the carrying value of the mortgage servicing rights asset and valuation allowance, precluding subsequent recoveries. See Note 12 for a discussion of the recourse provisions on sold residential mortgage loans. See Note 13 which further discusses fair value measurement relative to the mortgage servicing rights asset.

A summary of changes in the balance of the mortgage servicing rights asset and the mortgage servicing rights valuation allowance was as follows.

	Nine Months Ended September 30, 2016	Year Ended December 31, 2015
	($ in Thousands)	
Mortgage servicing rights:		
Mortgage servicing rights at beginning of period	$ 62,150	$ 61,379
Additions	8,701	12,372
Amortization	(9,142)	(11,601)
Mortgage servicing rights at end of period	$ 61,709	$ 62,150
Valuation allowance at beginning of period	(809)	(1,234)
(Additions) recoveries, net	(2,486)	425
Valuation allowance at end of period	(3,295)	(809)
Mortgage servicing rights, net	$ 58,414	$ 61,341
Fair value of mortgage servicing rights	$ 58,937	$ 70,686
Portfolio of residential mortgage loans serviced for others ("servicing portfolio")	$ 8,010,973	$ 7,915,224
Mortgage servicing rights, net to servicing portfolio	0.73%	0.77%
Mortgage servicing rights expense (1)	$ 11,628	$ 11,176

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

The following table shows the estimated future amortization expense for amortizing intangible assets. The projections of amortization expense are based on existing asset balances, the current interest rate environment, and prepayment speeds as of September 30, 2016. The actual amortization expense the Corporation recognizes in any given period may be significantly different depending upon acquisition or sale activities, changes in interest rates, prepayment speeds, market conditions, regulatory requirements, and events or circumstances that indicate the carrying amount of an asset may not be recoverable.

Estimated Amortization Expense	**Core Deposit Intangibles**	**Other Intangibles**	**Mortgage Servicing Rights**
		($ in Thousands)	
Three months ending December 31, 2016	$ 70	$ 455	$ 3,263
2017	112	1,786	11,237
2018	—	1,756	8,956
2019	—	1,457	7,223
2020	—	1,340	5,858
2021	—	1,316	4,784
Beyond 2021	—	7,610	20,388
Total Estimated Amortization Expense	$ 182	$ 15,720	$ 61,709

Note 9 Short and Long-Term Funding

The components of short-term funding (funding with original contractual maturities of one year or less) and long-term funding (funding with original contractual maturities greater than one year) were as follows.

	September 30, 2016	December 31, 2015
	($ in Thousands)	
Short-Term Funding		
Federal funds purchased	$ 221,165	$ 47,870
Securities sold under agreements to repurchase	477,607	383,568
Federal funds purchased and securities sold under agreements to repurchase	698,772	431,438
FHLB advances	450,000	335,000
Commercial paper	91,321	67,978
Other short-term funding	541,321	402,978
Total short-term funding	$ 1,240,093	$ 834,416
Long-Term Funding		
FHLB advances	$ 2,265,198	$ 1,750,225
Senior notes, at par	250,000	680,000
Subordinated notes, at par	250,000	250,000
Other long-term funding and capitalized costs	(3,563)	(4,061)
Total long-term funding	2,761,635	2,676,164
Total short and long-term funding	$ 4,001,728	$ 3,510,580

Securities sold under agreements to repurchase ("repurchase agreements")

The Corporation enters into agreements under which it sells securities subject to an obligation to repurchase the same or similar securities. Under these arrangements, the Corporation may transfer legal control over the assets but still retain effective control through an agreement that both entitles and obligates the Corporation to repurchase the assets. The obligation to repurchase the securities is reflected as a liability on the Corporation's consolidated balance sheets, while the securities underlying the repurchase agreements remain in the respective investment securities asset accounts (i.e., there is no offsetting or netting of the investment securities assets with the repurchase agreement liabilities). See Note 11 for additional disclosures on balance sheet offsetting.

The Corporation utilizes securities sold under agreements to repurchase to facilitate the needs of its customers. As of September 30, 2016, the Corporation pledged GSE mortgage-related securities with a fair value of $543 million as collateral for the repurchase agreements. Securities pledged as collateral under repurchase agreements are maintained with the Corporation's safekeeping agents and are monitored on a daily basis due to the market risk of fair value changes in the underlying securities. The Corporation generally pledges excess securities to ensure there is sufficient collateral to satisfy short-term fluctuations in both the repurchase agreement balances and the fair value of the underlying securities.

The remaining contractual maturity of the securities sold under agreements to repurchase in the consolidated balance sheets as of September 30, 2016 and December 31, 2015 are presented in the following table.

	Remaining Contractual Maturity of the Agreements				
September 30, 2016	Overnight and Continuous	Up to 30 days	30-90 days	Greater than 90 days	Total
	($ in Thousands)				
Repurchase agreements					
GSE securities	$ 477,607	$ —	$ —	$ —	$ 477,607
Total	$ 477,607	$ —	$ —	$ —	$ 477,607
December 31, 2015					
Repurchase agreements					
GSE securities	$ 383,568	$ —	$ —	$ —	$ 383,568
Total	$ 383,568	$ —	$ —	$ —	$ 383,568

Long-term funding:

FHLB advances: At September 30, 2016, the long-term FHLB advances had maturity dates primarily ranging from 2018 through 2019, and had an average interest rate of 0.33%. At December 31, 2015, the long-term FHLB advances had maturity dates primarily ranging from 2018 through 2019, and had an average interest rate of 0.13%. The majority of FHLB advances are indexed to the FHLB discount note and re-price at varying intervals. The advances offer flexible, low cost, long-term funding that improves the Corporation's liquidity profile.

2011 Senior Notes: In March 2011, the Corporation issued $300 million of senior notes due March 2016, and callable February 2016, with a 5.125% fixed coupon at a discount. In September 2011, the Corporation "re-opened" the offering and issued an additional $130 million of the same notes at a premium. All notes were redeemed in February 2016 at par.

2014 Senior Notes: In November 2014, the Corporation issued $250 million of senior notes, due November 2019, and callable October 2019. The senior notes have a fixed coupon interest rate of 2.75% and were issued at a discount.

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

Note 10 Derivative and Hedging Activities

The Corporation facilitates customer borrowing activity by providing various interest rate risk management, commodity hedging, and foreign currency exchange solutions through its capital markets area. To date, all of the notional amounts of customer transactions have been matched with a mirror hedge with another counterparty. The Corporation has used, and may use again in the future, derivative instruments to hedge the variability in interest payments or protect the value of certain assets and liabilities recorded on its consolidated balance sheets from changes in interest rates. The predominant derivative and hedging activities include interest rate-related instruments (swaps and caps), foreign currency exchange forwards, commodity contracts, written options, purchased options, and certain mortgage banking activities.

The contract or notional amount of a derivative is used to determine, along with the other terms of the derivative, the amounts to be exchanged between the counterparties. The Corporation is exposed to credit risk in the event of nonperformance by counterparties to financial instruments. To mitigate the counterparty risk, interest rate and commodity-related instruments generally contain language outlining collateral pledging requirements for each counterparty. Collateral must be posted when the market value exceeds certain mutually agreed upon threshold limits. The Corporation was required to pledge $38 million of investment securities as collateral at September 30, 2016, and pledged $9 million of investment securities as collateral at December 31, 2015. Federal regulations require the Corporation to clear all LIBOR interest rate swaps through a clearing house if it can be cleared. As such, the Corporation is required to pledge cash collateral for the margin. At September 30, 2016, the Corporation posted cash collateral for the margin of $37 million, compared to $22 million at December 31, 2015.

The Corporation's derivative and hedging instruments are recorded at fair value on the consolidated balance sheets. The fair value of the Corporation's interest rate-related instruments is determined using discounted cash flow analysis on the expected cash flows of each derivative and also includes a nonperformance / credit risk component (credit valuation adjustment). See Note 13 for additional fair value information and disclosures.

Derivatives to Accommodate Customer Needs

The Corporation enters into various derivative contracts which are not designated as hedging instruments. Such derivative products are entered into primarily for the benefit of commercial customers seeking to manage their exposures to interest rate, foreign currency, and commodity price risks. These derivative contracts are not designated against specific assets and liabilities on the balance sheet or forecasted transactions and, therefore, do not qualify for hedge accounting treatment. Such derivative contracts are carried at fair value on the consolidated balance sheets with changes in the fair value recorded as a component of capital market fees, net, and typically include interest rate-related instruments (swaps and caps), foreign currency exchange forwards, and commodity contracts. See Note 11 for additional information and disclosures on balance sheet offsetting.

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

Foreign currency exchange forwards: The Corporation provides foreign currency risk management services to customers, primarily forward contracts. Our customers enter into a foreign currency exchange forward with the Corporation as a means for them to mitigate exchange rate risk. The Corporation mitigates its risk by then entering into an offsetting foreign currency exchange derivative contract. Such foreign currency exchange contracts are carried at fair value on the consolidated balance sheets with changes in fair value recorded as a component of capital market fees, net.

Commodity contracts: The Corporation provides commodity risk management services to commercial customers, exclusively oil and gas contracts. Commodity contracts are entered into primarily for the benefit of commercial customers seeking to manage their exposure to fluctuating commodity prices. The Corporation mitigates its risk by then entering into an offsetting commodity derivative contract. Commodity contracts are carried at fair value on the consolidated balance sheets with changes in fair value recorded as a component of capital market fees, net.

The table below identifies the balance sheet category and fair values of the Corporation's derivative instruments to accommodate customer needs which are not designated as hedging instruments.

	September 30, 2016			December 31, 2015		
($ in Thousands)	Notional Amount	Fair Value	Balance Sheet Category	Notional Amount	Fair Value	Balance Sheet Category
Interest rate-related instruments — customer and mirror	$ 1,953,306	$ 47,504	Trading assets	$ 1,665,965	$ 29,391	Trading assets
Interest rate-related instruments — customer and mirror	1,953,306	(49,887)	Trading liabilities	1,665,965	(30,886)	Trading liabilities
Foreign currency exchange forwards	77,732	1,063	Trading assets	72,976	1,532	Trading assets
Foreign currency exchange forwards	76,945	(1,014)	Trading liabilities	65,649	(1,398)	Trading liabilities
Commodity contracts	158,209	12,213	Trading assets	44,380	1,269	Trading assets
Commodity contracts	159,048	(11,400)	Trading liabilities	44,256	(1,146)	Trading liabilities

Mortgage derivatives

Interest rate lock commitments to originate residential mortgage loans held for sale and forward commitments to sell residential mortgage loans are considered derivative instruments, and the fair value of these commitments is recorded on the consolidated balance sheets with the changes in fair value recorded as a component of mortgage banking, net.

Written and purchased options (time deposit)

Historically, the Corporation had entered into written and purchased option derivative instruments to facilitate an equity linked time deposit product (the "Power CD"), which the Corporation ceased offering in September 2013. The Power CD was a time deposit that provided the purchaser a guaranteed return of principal at maturity plus a potential equity return (a written option), while the Corporation received a known stream of funds based on the equity return (a purchased option). The written and purchased options are mirror derivative instruments which are carried at fair value on the consolidated balance sheets.

The table below identifies the balance sheet category and fair values of the Corporation's derivative instruments which are not designated as hedging instruments.

	September 30, 2016			December 31, 2015		
($ in Thousands)	Notional Amount	Fair Value	Balance Sheet Category	Notional Amount	Fair Value	Balance Sheet Category
Interest rate lock commitments (mortgage)	$ 520,932	$ 3,726	Other assets	$ 271,530	$ 958	Other assets
Forward commitments (mortgage)	383,000	(1,868)	Other liabilities	231,798	403	Other assets
Purchased options (time deposit)	81,004	2,455	Other assets	104,582	2,715	Other assets
Written options (time deposit)	81,004	(2,455)	Other liabilities	104,582	(2,715)	Other liabilities

The table below identifies the income statement category of the gains and losses recognized in income on the Corporation's derivative instruments not designated as hedging instruments.

	Income Statement Category of Gain / (Loss) Recognized in Income	For the Nine Months Ended September 30,	
($ in Thousands)		2016	2015
Interest rate-related instruments — customer and mirror, net	Capital market fees, net	$ (888)	$ 85
Interest rate lock commitments (mortgage)	Mortgage banking, net	2,768	637
Forward commitments (mortgage)	Mortgage banking, net	(2,271)	453
Foreign currency exchange forwards	Capital market fees, net	(85)	16
Commodity contracts	Capital market fees, net	690	—

Note 11 Balance Sheet Offsetting

Interest Rate-Related Instruments and Commodity Contracts (“Interest and Commodity Agreements”)

The Corporation enters into interest rate-related instruments to facilitate the interest rate risk management strategies of commercial customers. The Corporation also enters into commodity contracts to manage commercial customers' exposure to fluctuating commodity prices. The Corporation mitigates these risks by entering into equal and offsetting interest and commodity agreements with highly rated third party financial institutions. The Corporation is party to master netting arrangements with its financial institution counterparties that creates a single net settlement of all legal claims or obligations to pay or receive the net amount of settlement of the individual interest and commodity agreements. Collateral, usually in the form of investment securities and cash, is posted by the counterparty with net liability positions in accordance with contract thresholds. The Corporation does not offset assets and liabilities under these arrangements for financial statement presentation purposes. See Note 10 for additional information on the Corporation’s derivative and hedging activities.

Securities Sold Under Agreements to Repurchase (“Repurchase Agreements”)

The Corporation enters into agreements under which it sells securities subject to an obligation to repurchase the same or similar securities. These repurchase agreements are accounted for as collateralized financing arrangements (i.e., secured borrowings) and not as a sale and subsequent repurchase of securities (i.e., there is no offsetting or netting of the investment securities assets with the repurchase agreement liabilities). The right of set-off for a repurchase agreement resembles a secured borrowing, whereby the collateral would be used to settle the fair value of the repurchase agreement should the Corporation be in default (e.g., fails to make an interest payment to the counterparty). In addition, the Corporation does not enter into reverse repurchase agreements; therefore, there is no such offsetting to be done with the repurchase agreements. See Note 9 for additional disclosures on repurchase agreements.

The following table presents the assets and liabilities subject to an enforceable master netting arrangement. The interest and commodity agreements we have with our commercial customers are not subject to an enforceable master netting arrangement, and therefore, are excluded from this table.

				Gross amounts not offset in the balance sheet		
	Gross amounts recognized	Gross amounts offset in the balance sheet	Net amounts presented in the balance sheet	Financial instruments	Collateral	Net amount
			($ in Thousands)			
September 30, 2016						
Derivative assets:						
Interest and commodity agreements	$ 5,193	$ —	$ 5,193	$ (5,193)	$ —	$ —
Derivative liabilities:						
Interest and commodity agreements	$ 59,413	$ —	$ 59,413	$ (5,193)	$ (54,220)	$ —
December 31, 2015						
Derivative assets:						
Interest and commodity instruments	$ 1,466	$ —	$ 1,466	$ (1,466)	$ —	$ —
Derivative liabilities:						
Interest and commodity instruments	$ 30,200	$ —	$ 30,200	$ (1,466)	$ (28,734)	$ —

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

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

	September 30, 2016	December 31, 2015
	($ in Thousands)	
Commitments to extend credit, excluding commitments to originate residential mortgage loans held for sale(1)(2)	$ 7,849,498	$ 7,402,518
Commercial letters of credit(1)	8,935	9,945
Standby letters of credit(3)	265,381	296,508

1) These off-balance sheet financial instruments are exercisable at the market rate prevailing at the date the underlying transaction will be completed and, thus, are deemed to have no current fair value, or the fair value is based on fees currently charged to enter into similar agreements and is not material at September 30, 2016 or December 31, 2015.
2) Interest rate lock commitments to originate residential mortgage loans held for sale are considered derivative instruments and are disclosed in Note 10.
3) The Corporation has established a liability of $3 million at both September 30, 2016 and December 31, 2015, as an estimate of the fair value of these financial instruments.

Lending-related Commitments

As a financial services provider, the Corporation routinely enters into commitments to extend credit. Such commitments are subject to the same credit policies and approval process accorded to loans made by the Corporation, with each customer's creditworthiness evaluated on a case-by-case basis. The commitments generally have fixed expiration dates or other termination clauses and may require the payment of a fee. The Corporation's exposure to credit loss in the event of nonperformance by the other party to these financial instruments is represented by the contractual amount of those instruments. The amount of collateral obtained, if deemed necessary by the Corporation upon extension of credit, is based on management's credit evaluation of the customer. Since a significant portion of commitments to extend credit are subject to specific restrictive loan covenants or may expire without being drawn upon, the total commitment amounts do not necessarily represent future cash flow requirements. An allowance for unfunded commitments is maintained at a level believed by management to be sufficient to absorb estimated probable losses related to unfunded commitments (including unfunded loan commitments and letters of credit). The allowance for unfunded commitments increased to $28 million at September 30, 2016 compared to $24 million at December 31, 2015, and is included in accrued expenses and other liabilities on the consolidated balance sheets.

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

Other Commitments

The Corporation has principal investment commitments to provide capital-based financing to private and public companies through either direct investments in specific companies or through investment funds and partnerships. The timing of future cash requirements to fund such commitments is generally dependent on the investment cycle, whereby privately held companies are funded by private equity investors and ultimately sold, merged, or taken public through an initial offering, which can vary based on overall market conditions, as well as the nature and type of industry in which the companies operate. The Corporation also invests in unconsolidated projects including low-income housing, new market tax credit projects, and historic tax credit projects to promote the revitalization of primarily low-to-moderate-income neighborhoods throughout the local communities of its bank subsidiary. As a limited partner in these unconsolidated projects, the Corporation is allocated tax credits and deductions associated with the underlying projects. The aggregate carrying value of these investments at September 30, 2016, was $68 million, compared to $52 million at December 31, 2015, and is included in other assets on the consolidated balance sheets. Related to these investments, the Corporation had remaining commitments to fund of $54 million at September 30, 2016, and $61 million at December 31, 2015.

Legal Proceedings

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

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

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

A lawsuit, *R.J. ZAYED v. Associated Bank, N.A.*, was filed in the United States District Court for the District of Minnesota on January 29, 2013. The lawsuit relates to a Ponzi scheme perpetrated by Oxford Global Partners and related entities ("Oxford") and individuals and was brought by the receiver for Oxford. Oxford was a depository customer of Associated Bank (the "Bank"). The lawsuit claims that the Bank is liable for failing to uncover the Oxford Ponzi scheme, and specifically alleges the Bank aided and abetted (1) the fraudulent scheme; (2) a breach of fiduciary duty; (3) conversion; and (4) false representations and omissions. The lawsuit seeks unspecified consequential and punitive damages. The District Court granted the Bank's motion to dismiss the complaint on September 30, 2013. On March 2, 2015, the U.S. Court of Appeals for the Eighth Circuit reversed the District Court and remanded the case back to the District Court for further proceedings. It is not possible for management to assess the probability of a material adverse outcome or reasonably estimate the amount of any potential loss at this time. A lawsuit by investors in the same Ponzi scheme, *Herman Grad, et al v. Associated Bank, N.A.,* brought in Brown County, Wisconsin in October 2009 was dismissed by the circuit court, and the dismissal was affirmed by the Wisconsin Court of Appeals in June 2011 in an unpublished opinion.

On May 22, 2015, the Bank entered into a Conciliation Agreement ("Conciliation Agreement") with the U.S. Department of Housing and Urban Development ("HUD") which resolved the HUD investigation into the Bank's lending practices during the years 2008-2010. The Bank's commitments under the Conciliation Agreement are spread over a three-year period and include commitments to do the following in minority communities: make mortgage loans of approximately $196 million; open one branch and four loan production offices; establish special financing programs; make affordable home repair grants; engage in affirmative marketing outreach; provide financial education programs; and make grants to support community reinvestment training and education. The cost of these commitments will be spread over four calendar years and is not expected to have a material impact on the Corporation's financial condition or results of operation.

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

Two complaints were filed against the Bank on January 11, 2016 in the United States Bankruptcy Court for the Northern District of Illinois, Eastern Division in connection with the *In re: World Marketing Chicago, LLC, et al* Chapter 11 bankruptcy proceeding. In the first complaint, *The Official Committee of Unsecured Creditors of World Marketing Chicago, LLC, et al v. Associated Bank, N.A.,* the plaintiff seeks to avoid guarantees and pledges of collateral given by the debtors to secure a revolving financing commitment of $6 million to the debtors' parent company from the Bank. The plaintiff alleges a variety of legal theories under federal and state law, including fraudulent conveyance, preferential transfer and conversion, in support of its position. The plaintiff seeks return of approximately $4 million paid to the Bank and the avoidance of the security interest in the collateral securing the remaining indebtedness to the Bank. The Bank intends to vigorously defend this lawsuit. In the second complaint, *American*

Funds Service Company v. Associated Bank, N.A., the plaintiff alleges that approximately $600,000 of funds it had advanced to the World Marketing entities to apply towards future postage fees was swept by the Bank from World Marketing's bank accounts. Plaintiff seeks the return of such funds from the Bank under several theories, including Sec. 541(d) of the Bankruptcy Code, the creation of a resulting trust, and unjust enrichment. The Bank intends to vigorously defend this lawsuit. It is not possible for management to assess the probability of a material adverse outcome or reasonably estimate the amount of any potential loss at this time with respect to these two lawsuits.

Mortgage Repurchase Reserve

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

As a result of make whole requests, the Corporation has repurchased loans with principal balances of approximately $2 million and $3 million during the nine months ended September 30, 2016 and the year ended December 31, 2015, respectively. The loss reimbursement and settlement claims paid for the nine months ended September 30, 2016 and the year ended December 31, 2015, respectively, were negligible. Make whole requests during 2015 and the first nine months of 2016 generally arose from loans sold during the period of January 1, 2012 to September 30, 2016, which totaled $8.8 billion at the time of sale, and consisted primarily of loans sold to GSEs. As of September 30, 2016, approximately $6.0 billion of these sold loans remain outstanding.

The balance in the mortgage repurchase reserve at the balance sheet date reflects the estimated amount of potential loss the Corporation could incur from repurchasing a loan, as well as loss reimbursements, indemnifications, and other settlement resolutions. The following summarizes the changes in the mortgage repurchase reserve.

	Nine Months Ended September 30, 2016	Year Ended December 31, 2015
	($ in Thousands)	
Balance at beginning of period	$ 1,197	$ 3,258
Repurchase provision expense	342	428
Adjustments to provision expense	—	(2,450)
Charge offs, net	(5)	(39)
Balance at end of period	$ 1,534	$ 1,197

The Corporation may also sell residential mortgage loans with limited recourse (limited in that the recourse period ends prior to the loan's maturity, usually after certain time and / or loan paydown criteria have been met), whereby repurchase could be required if the loan had defined delinquency issues during the limited recourse periods. At September 30, 2016, and December 31, 2015, there were approximately $48 million and $68 million, respectively, of residential mortgage loans sold with such recourse risk. There have been limited instances and immaterial historical losses on repurchases for recourse under the limited recourse criteria.

The Corporation has a subordinate position to the FHLB in the credit risk on residential mortgage loans it sold to the FHLB in exchange for a monthly credit enhancement fee. The Corporation has not sold loans to the FHLB with such credit risk retention since February 2005. At September 30, 2016 and December 31, 2015, there were $104 million and $132 million, respectively, of such residential mortgage loans with credit risk recourse, upon which there have been negligible historical losses to the Corporation.

Note 13 Fair Value Measurements

Fair value represents the estimated price at which an orderly transaction to sell an asset or to transfer a liability would take place between market participants at the measurement date under current market conditions (i.e., an exit price concept). Following is a description of the valuation methodologies used for the Corporation's more significant instruments measured on a recurring basis at fair value, including the general classification of such instruments pursuant to the valuation hierarchy.

Assets and Liabilities Measured at Fair Value on a Recurring Basis

Investment securities available for sale: Where quoted prices are available in an active market, investment securities are classified in Level 1 of the fair value hierarchy. If quoted market prices are not available for the specific security, then fair values are estimated by using pricing models, quoted prices of securities with similar characteristics or discounted cash flows, with consideration given to the nature of the quote and the relationship of recently evidenced market activity to the fair value estimate, and are classified in Level 2 of the fair value hierarchy. Lastly, in certain cases where there is limited activity or less transparency around inputs to the estimated fair value, securities are classified within Level 3 of the fair value hierarchy. To validate the fair value estimates, assumptions, and controls, the Corporation looks to transactions for similar instruments and utilizes independent pricing provided by third party vendors or brokers and relevant market indices. While none of these sources are solely indicative of fair value, they serve as directional indicators for the appropriateness of the Corporation's fair value estimates. The Corporation has determined that the fair value measures of its investment securities are classified predominantly within Level 1 or 2 of the fair value hierarchy. See Note 6 for additional disclosure regarding the Corporation's investment securities.

Derivative financial instruments (interest rate-related instruments): The Corporation has used, and may use again in the future, interest rate swaps to manage its interest rate risk. In addition, the Corporation offers interest rate-related instruments (swaps and caps) to service our customers' needs, for which the Corporation simultaneously enters into offsetting derivative financial instruments (i.e., mirror interest rate-related instruments) with third parties to manage its interest rate risk associated with these financial instruments. The valuation of the Corporation's derivative financial instruments is determined using discounted cash flow analysis on the expected cash flows of each derivative and, also includes a nonperformance / credit risk component (credit valuation adjustment). See Note 10 for additional disclosure regarding the Corporation's interest rate-related instruments.

The discounted cash flow analysis component in the fair value measurement reflects the contractual terms of the derivative financial instruments, including the period to maturity, and uses observable market-based inputs, including interest rate curves and implied volatilities. More specifically, the fair values of interest rate swaps are determined using the market standard methodology of netting the discounted future fixed cash receipts (or payments), with the variable cash payments (or receipts) based on an expectation of future interest rates (forward curves) derived from observable market interest rate curves. Likewise, the fair values of interest rate options (i.e., interest rate caps) are determined using the market standard methodology of discounting the future expected cash receipts that would occur if variable interest rates fall below (or rise above) the strike rate of the floors (or caps), with the variable interest rates used in the calculation of projected receipts on the floor (or cap) based on an expectation of future interest rates derived from observable market interest rate curves and volatilities.

The Corporation also incorporates credit valuation adjustments to appropriately reflect both its own nonperformance risk and the respective counterparty's nonperformance risk in the fair value measurements. In adjusting the fair value of its derivative financial instruments for the effect of nonperformance risk, the Corporation has considered the impact of netting and any applicable credit enhancements, such as collateral postings, thresholds, mutual puts, and guarantees.

While the Corporation has determined that the majority of the inputs used to value its derivative financial instruments fall within Level 2 of the fair value hierarchy, the credit valuation adjustments utilize Level 3 inputs, such as estimates of current credit spreads to evaluate the likelihood of default by itself and its counterparties. The Corporation has assessed the significance of the impact of the credit valuation adjustments on the overall valuation of its derivative positions as of September 30, 2016, and December 31, 2015, and has determined that the credit valuation adjustments are not significant to the overall valuation of its derivative financial instruments. Therefore, the Corporation has determined that the fair value measures of its derivative financial instruments in their entirety are classified within Level 2 of the fair value hierarchy.

Derivative financial instruments (foreign currency exchange forwards): The Corporation provides foreign currency exchange services to customers. In addition, the Corporation may enter into a foreign currency exchange forward to mitigate the exchange rate risk attached to the cash flows of a loan or as an offsetting contract to a forward entered into as a service to our customer. The valuation of the Corporation's foreign currency exchange forwards is determined using quoted prices of foreign currency exchange forwards with similar characteristics, with consideration given to the nature of the quote and the relationship of recently evidenced market activity to the fair value estimate, and are classified in Level 2 of the fair value hierarchy. See Note 10 for additional disclosures regarding the Corporation's foreign currency exchange forwards.

Derivative financial instruments (commodity contracts): The Corporation enters into commodity contracts to manage commercial customers' exposure to fluctuating commodity prices, for which the Corporation simultaneously enters into offsetting derivative financial instruments (i.e., mirror commodity contracts) with third parties to manage its risk associated with these financial instruments. The valuation of the Corporation's commodity contracts is determined using quoted prices of the underlying instrument, and are classified in Level 2 of the fair value hierarchy. See Note 10 for additional disclosures regarding the Corporation's commodity contracts.

Derivative financial instruments (mortgage derivatives): Mortgage derivatives include interest rate lock commitments to originate residential mortgage loans held for sale to individual customers and forward commitments to sell residential mortgage loans to various investors. The Corporation relies on an internal valuation model to estimate the fair value of its interest rate lock commitments to originate residential mortgage loans held for sale, which includes grouping the interest rate lock commitments by interest rate and terms, applying an estimated pull-through rate based on historical experience, and then multiplying by quoted investor prices determined to be reasonably applicable to the loan commitment groups based on interest rate, terms, and rate lock expiration dates of the loan commitment groups.

The Corporation also relies on an internal valuation model to estimate the fair value of its forward commitments to sell residential mortgage loans (i.e., an estimate of what the Corporation would receive or pay to terminate the forward delivery contract based on market prices for similar financial instruments), which includes matching specific terms and maturities of the forward commitments against applicable investor pricing available. While there are Level 2 and 3 inputs used in the valuation models, the Corporation has determined that the majority of the inputs significant in the valuation of both of the mortgage derivatives fall within Level 3 of the fair value hierarchy. See Note 10 for additional disclosure regarding the Corporation's mortgage derivatives.

Following is a description of the valuation methodologies used for the Corporation's more significant instruments measured on a nonrecurring basis at the lower of amortized cost or estimated fair value, including the general classification of such instruments pursuant to the valuation hierarchy.

Loans Held for Sale: Loans held for sale, which consist generally of current production of certain fixed-rate, first-lien residential mortgage loans, and certain commercial loans, once a decision has been made to sell such loans, are carried at the lower of cost or estimated fair value. The estimated fair value was based on what secondary markets are currently offering for portfolios with similar characteristics, which the Corporation classifies as a Level 2 nonrecurring fair value measurement.

Impaired Loans: The Corporation considers a loan impaired when it is probable that the Corporation will be unable to collect all amounts due according to the original contractual terms of the note agreement, including both principal and interest. Management has determined that commercial and consumer loan relationships that have nonaccrual status or have had their terms restructured in a troubled debt restructuring meet this impaired loan definition. For individually evaluated impaired loans, the amount of impairment is based upon the present value of expected future cash flows discounted at the loan's effective interest rate, the estimated fair value of the underlying collateral for collateral-dependent loans, or the estimated liquidity of the note. See Note 7 for additional information regarding the Corporation's impaired loans.

Mortgage servicing rights: Mortgage servicing rights do not trade in an active, open market with readily observable prices. While sales of mortgage servicing rights do occur, the precise terms and conditions typically are not readily available to allow for a "quoted price for similar assets" comparison. Accordingly, the Corporation utilizes an independent valuation from a third party which uses a discounted cash flow model to estimate the fair value of its mortgage servicing rights. The valuation model incorporates prepayment assumptions to project mortgage servicing rights cash flows based on the current interest rate scenario, which is then discounted to estimate an expected fair value of the mortgage servicing rights. The valuation model considers portfolio characteristics of the underlying mortgages, contractually specified servicing fees, prepayment assumptions, discount rate assumptions, delinquency rates, late charges, other ancillary revenue, costs to service, and other economic factors. The Corporation periodically reviews and assesses the underlying inputs and assumptions used in the model. In addition, the Corporation compares its fair value estimates and assumptions to observable market data for mortgage servicing rights, where available, and to recent market activity and actual portfolio experience. Due to the nature of the valuation inputs, mortgage servicing rights are classified within Level 3 of the fair value hierarchy. The Corporation uses the amortization method (i.e., lower of amortized cost or estimated fair value measured on a nonrecurring basis), not fair value measurement accounting, for its mortgage servicing rights assets. See Note 8 for additional disclosure regarding the Corporation's mortgage servicing rights.

The table below presents the Corporation's investment securities available for sale and derivative financial instruments measured at fair value on a recurring basis as of September 30, 2016 and December 31, 2015, aggregated by the level in the fair value hierarchy within which those measurements fall.

Assets and Liabilities Measured at Fair Value on a Recurring Basis

	Fair Value Hierarchy	September 30, 2016	December 31, 2015
		($ in Thousands)	
Assets:			
Investment securities available for sale:			
U.S. Treasury securities	Level 1	$ 1,001	$ 997
Residential mortgage-related securities:			
FNMA / FHLMC	Level 2	912,860	1,414,626
GNMA	Level 2	1,811,529	1,590,003
Private-label	Level 2	1,200	1,709
GNMA commercial mortgage-related securities	Level 2	2,114,669	1,955,310
Other securities (debt and equity)	Level 1	1,629	1,569
Other securities (debt and equity)	Level 2	3,000	3,000
Other securities (debt and equity)	Level 3	200	200
Total investment securities available for sale	Level 1	2,630	2,566
Total investment securities available for sale	Level 2	4,843,258	4,964,648
Total investment securities available for sale	Level 3	200	200
Interest rate-related instruments	Level 2	47,504	29,391
Foreign currency exchange forwards	Level 2	1,063	1,532
Interest rate lock commitments to originate residential mortgage loans held for sale	Level 3	3,726	958
Forward commitments to sell residential mortgage loans	Level 3	—	403
Commodity contracts	Level 2	12,213	1,269
Purchased options (time deposit)	Level 2	2,455	2,715
Liabilities:			
Interest rate-related instruments	Level 2	$ 49,887	$ 30,886
Foreign currency exchange forwards	Level 2	1,014	1,398
Forward commitments to sell residential mortgage loans	Level 3	1,868	—
Commodity contracts	Level 2	11,400	1,146
Written options (time deposit)	Level 2	2,455	2,715

The table below presents a rollforward of the balance sheet amounts for the nine months ended September 30, 2016 and the year ended December 31, 2015, for financial instruments measured on a recurring basis and classified within Level 3 of the fair value hierarchy.

	Investment Securities Available for Sale	Derivative Financial Instruments
	($ in Thousands)	
Balance December 31, 2014	$ 200	$ (488)
Total net gains included in income:		
Mortgage derivative gain	—	1,849
Balance December 31, 2015	$ 200	$ 1,361
Total net gains included in income:		
Mortgage derivative gain	—	497
Balance September 30, 2016	$ 200	$ 1,858

For Level 3 assets and liabilities measured at fair value on a recurring or nonrecurring basis as of September 30, 2016, the Corporation utilized the following valuation techniques and significant unobservable inputs.

Derivative financial instruments (mortgage derivative — interest rate lock commitments to originate residential mortgage loans held for sale): The significant unobservable input used in the fair value measurement of the Corporation's mortgage derivative interest rate lock commitments is the closing ratio, which represents the percentage of loans currently in a lock position which management estimates will ultimately close. The closing ratio calculation takes into consideration historical data and loan-level data, particularly the change in the current interest rates from the time of initial rate lock. The closing ratio is periodically reviewed for reasonableness and reported to the Associated Mortgage Risk Management Committee. At September 30, 2016, the closing ratio was 88%.

Impaired loans: For individually evaluated impaired loans, the amount of impairment is based upon the present value of expected future cash flows discounted at the loan's effective interest rate, the estimated fair value of the underlying collateral for collateral-dependent loans, or the estimated liquidity of the note, resulting in an average discount of approximately 20%.

Mortgage servicing rights: The discounted cash flow analyses that generate expected market prices utilize the observable characteristics of the mortgage servicing rights portfolio, as well as certain unobservable valuation parameters. The significant unobservable inputs used in the fair value measurement of the Corporation's mortgage servicing rights are the weighted average constant prepayment rate and weighted average discount rate, which were 15.5% and 9.6% at September 30, 2016, respectively. Significant increases (decreases) in any of those inputs in isolation could result in a significantly lower (higher) fair value measurement.

These parameter assumptions fall within a range that the Corporation, in consultation with an independent third party, believes purchasers of servicing would apply to such portfolios sold into the current secondary servicing market. Discussions are held with members from Treasury and the Community, Consumer, and Business segment to reconcile the fair value estimates and the key assumptions used by the respective parties in arriving at those estimates. The Associated Mortgage Risk Management Committee is responsible for providing control over the valuation methodology and key assumptions. To assess the reasonableness of the fair value measurement, the Corporation also compares the fair value and constant prepayment rate to a value calculated by an independent third party on an annual basis.

The table below presents the Corporation's loans held for sale, impaired loans, and mortgage servicing rights measured at fair value on a nonrecurring basis as of September 30, 2016 and December 31, 2015, aggregated by the level in the fair value hierarchy within which those measurements fall.

Assets and Liabilities Measured at Fair Value on a Nonrecurring Basis

($ in Thousands)	Fair Value Hierarchy	Fair Value	Income Statement Category of Adjustment Recognized in Income	Adjustment Recognized in Income
September 30, 2016				
Assets:				
Commercial loans held for sale	Level 2	$ 16,912	Provision for credit losses	$ (451)
Mortgage loans held for sale (1)	Level 2	214,298	Mortgage banking, net	—
Impaired loans (2)	Level 3	47,554	Provision for credit losses	(53,866)
Mortgage servicing rights	Level 3	58,937	Mortgage banking, net	(2,486)
December 31, 2015				
Assets:				
Mortgage loans held for sale	Level 2	$ 124,915	Mortgage banking, net	$ (155)
Impaired loans (2)	Level 3	41,891	Provision for credit losses	(7,796)
Mortgage servicing rights	Level 3	70,686	Mortgage banking, net	425

(1) Loans held for sale are carried at the lower of cost or estimated fair value. At September 30, 2016, the estimated fair value exceeded the cost and therefore there was no adjustment recognized in the Consolidated Statements of Income.
(2) Represents individually evaluated impaired loans, net of the related allowance for loan losses.

Certain nonfinancial assets measured at fair value on a nonrecurring basis include other real estate owned (upon initial recognition or subsequent impairment), nonfinancial assets and nonfinancial liabilities measured at fair value in the second step of a goodwill impairment test, and intangible assets and other nonfinancial long-lived assets measured at fair value for impairment assessment.

During the first nine months of 2016 and the full year 2015, certain other real estate owned, upon initial recognition, was re-measured and reported at fair value through a charge off to the allowance for loan losses based upon the estimated fair value of the other real estate owned, less estimated selling costs. The fair value of other real estate owned, upon initial recognition or subsequent impairment, was estimated using appraised values, which the Corporation classifies as a Level 2 nonrecurring fair value measurement. Other real estate owned measured at fair value upon initial recognition totaled approximately $9 million for the first nine months of 2016 and $11 million for the year ended December 31, 2015, respectively. In addition to other real estate owned measured at fair value upon initial recognition, the Corporation also recorded write-downs to the balance of other real estate owned for subsequent impairment of $1 million and $3 million to foreclosure / OREO expense, net for the nine months ended September 30, 2016 and the year ended December 31, 2015, respectively.

Fair Value of Financial Instruments:

The Corporation is required to disclose estimated fair values for its financial instruments. Fair value estimates, methods, and assumptions are set forth below for the Corporation's financial instruments.

		September 30, 2016		December 31, 2015	
	Fair Value Hierarchy Level	Carrying Amount	Fair Value	Carrying Amount	Fair Value
		($ in Thousands)			
Financial assets:					
Cash and due from banks	Level 1	$ 356,047	$ 356,047	$ 374,921	$ 374,921
Interest-bearing deposits in other financial institutions	Level 1	240,010	240,010	79,764	79,764
Federal funds sold and securities purchased under agreements to resell	Level 1	14,250	14,250	19,000	19,000
Investment securities held to maturity	Level 2	1,253,494	1,287,830	1,168,230	1,184,442
Investment securities available for sale	Level 1	2,630	2,630	2,566	2,566
Investment securities available for sale	Level 2	4,843,258	4,843,258	4,964,648	4,964,648
Investment securities available for sale	Level 3	200	200	200	200
FHLB and Federal Reserve Bank stocks	Level 2	140,215	140,215	147,240	147,240
Loans held for sale	Level 2	230,795	231,210	124,915	124,915
Loans, net	Level 3	19,574,465	19,588,911	18,440,079	18,389,832
Bank owned life insurance	Level 2	584,088	584,088	583,019	583,019
Derivatives (trading and other assets)	Level 2	63,235	63,235	34,907	34,907
Derivatives (trading and other assets)	Level 3	3,726	3,726	1,361	1,361
Financial liabilities:					
Noninterest-bearing demand, savings, interest-bearing demand, and money market accounts	Level 3	$ 20,221,611	$ 20,221,611	$ 19,444,863	$ 19,444,863
Brokered CDs and other time deposits	Level 2	1,526,101	1,530,993	1,562,802	1,564,464
Short-term funding	Level 2	1,240,093	1,240,093	834,416	834,416
Long-term funding	Level 2	2,761,635	2,820,062	2,676,164	2,728,112
Standby letters of credit (1)	Level 2	2,619	2,619	2,954	2,954
Derivatives (trading and other liabilities)	Level 2	64,756	64,756	36,145	36,145
Derivatives (trading and other liabilities)	Level 3	1,868	1,868	—	—

(1) The commitment on standby letters of credit was $265 million and $297 million at September 30, 2016 and December 31, 2015, respectively. See Note 12 for additional information on the standby letters of credit and for information on the fair value of lending-related commitments.

Cash and due from banks, interest-bearing deposits in other financial institutions, and federal funds sold and securities purchased under agreements to resell—For these short-term instruments, the carrying amount is a reasonable estimate of fair value.

Investment securities (held to maturity and available for sale)—The fair value of investment securities is based on quoted prices in active markets, or if quoted prices are not available for a specific security, then fair values are estimated by using pricing models, quoted prices of securities with similar characteristics, or discounted cash flows.

FHLB and Federal Reserve Bank stocks—The carrying amount is a reasonable fair value estimate for the Federal Reserve Bank and FHLB stocks given their "restricted" nature (i.e., the stock can only be sold back to the respective institutions (FHLB or Federal Reserve Bank) or another member institution at par).

Loans held for sale—The fair value estimation process for the loans held for sale portfolio is segregated by loan type. The estimated fair value for mortgage loans held for sale was based on what secondary markets are currently offering for portfolios with similar characteristics. The estimated fair value for commercial loans held for sale was based on a discounted cash flow analysis.

Loans, net—The fair value estimation process for the loan portfolio uses an exit price concept and reflects discounts the Corporation believes are consistent with liquidity discounts in the market place. Fair values are estimated for portfolios of loans with similar financial characteristics. Loans are segregated by type such as commercial and industrial, real estate construction, commercial real estate (owner occupied and investor), residential mortgage, home equity, and other consumer. The fair value of loans is estimated by discounting the future cash flows using the current rates at which similar loans would be made to borrowers with similar credit ratings and for similar maturities. The fair value analysis also included other assumptions to estimate fair value, intended to approximate those a market participant would use in an orderly transaction, with adjustments for discount rates, interest rates, liquidity, and credit spreads, as appropriate.

Bank owned life insurance—The fair value of bank owned life insurance approximates the carrying amount, because upon liquidation of these investments, the Corporation would receive the cash surrender value which equals the carrying amount.

Deposits—The fair value of deposits with no stated maturity such as noninterest-bearing demand, savings, interest-bearing demand, and money market accounts, is equal to the amount payable on demand as of the balance sheet date. The fair value of Brokered CDs and other time deposits is based on the discounted value of contractual cash flows. The discount rate is estimated using the rates currently offered for deposits of similar remaining maturities. However, if the estimated fair value of Brokered CDs and other time deposits is less than the carrying value, the carrying value is reported as the fair value.

Short-term funding—The carrying amount is a reasonable estimate of fair value for existing short-term funding.

Long-term funding—Rates currently available to the Corporation for debt with similar terms and remaining maturities are used to estimate the fair value of existing long-term funding.

Standby letters of credit—The fair value of standby letters of credit represents deferred fees arising from the related off-balance sheet financial instruments. These deferred fees approximate the fair value of these instruments and are based on several factors, including the remaining terms of the agreement and the credit standing of the customer.

Derivatives (trading and other) - A detailed description of the Corporation's derivative instruments can be found under the "Assets and Liabilities Measured at Fair Value on a Recurring Basis" section of this footnote.

Limitations—Fair value estimates are made at a specific point in time, based on relevant market information and information about the financial instrument. These estimates do not reflect any premium or discount that could result from offering for sale at one time the Corporation’s entire holdings of a particular financial instrument. Because no market exists for a significant portion of the Corporation’s financial instruments, fair value estimates are based on judgments regarding future expected loss experience, current economic conditions, risk characteristics of various financial instruments, and other factors. These estimates are subjective in nature and involve uncertainties and matters of significant judgment and, therefore, cannot be determined with precision. Changes in assumptions could significantly affect the estimates.

Note 14 Retirement Plans

The Corporation has a noncontributory defined benefit retirement plan (the Retirement Account Plan (“RAP”)) covering substantially all full-time employees. The benefits are based primarily on years of service and the employee’s compensation paid. Employees of acquired entities generally participate in the RAP after consummation of the business combinations. Any retirement plans of acquired entities are typically merged into the RAP after completion of the mergers, and credit is usually given to employees for years of service at the acquired institution for vesting and eligibility purposes.

The Corporation also provides healthcare access for eligible retired employees in its Postretirement Plan (the “Postretirement Plan”). Retirees who are at least 55 years of age with 5 years of service are eligible to participate in the Postretirement Plan. The Corporation has no plan assets attributable to the Postretirement Plan. The Corporation reserves the right to make changes to the Postretirement Plan at any time.

The components of net periodic benefit cost for the RAP and Postretirement Plans for three and nine months ended September 30, 2016 and 2015 were as follows.

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2016	2015	2016	2015
	($ in Thousands)			
Components of Net Periodic Benefit Cost				
Pension Plan:				
Service cost	$ 1,636	$ 2,318	$ 5,086	$ 8,443
Interest cost	1,781	1,678	5,341	4,963
Expected return on plan assets	(5,085)	(5,379)	(15,215)	(16,079)
Amortization of prior service cost	(80)	12	(55)	37
Amortization of actuarial loss	621	627	1,586	1,692
Total net periodic pension cost	$ (1,127)	$ (744)	$ (3,257)	$ (944)
Postretirement Plan:				
Interest cost	$ 35	$ 35	$ 107	$ 105
Total net periodic benefit cost	$ 35	$ 35	$ 107	$ 105

Note 15 Segment Reporting

The Corporation utilizes a risk-based internal profitability measurement system to provide strategic business unit reporting. The profitability measurement system is based on internal management methodologies designed to produce consistent results and reflect the underlying economics of the units. Certain strategic business units have been combined for segment information reporting purposes where the nature of the products and services, the type of customer and the distribution of those products and services are similar. The three reportable segments are Corporate and Commercial Specialty; Community, Consumer, and Business; and Risk Management and Shared Services. The financial information of the Corporation's segments has been compiled utilizing the accounting policies described in the Corporation's 2015 Annual Report on Form 10-K, with certain exceptions. The more significant of these exceptions are described herein.

The Corporation allocates net interest income using an internal funds transfer pricing ("FTP") methodology that charges users of funds (assets) and credits providers of funds (liabilities, primarily deposits) based on the maturity, prepayment and / or repricing characteristics of the assets and liabilities. The net effect of this allocation is recorded in the Risk Management and Shared Services segment.

During 2015, the Corporation adopted enhanced FTP methodology utilizing new, more granular deposit information which incorporated the additional dimension of vintage (based on time from when the deposit account was opened) for determining the funds credit for non-maturity deposits. The new deposit information demonstrated that deposit accounts with the Corporation for a longer period of time had a lower attrition rate, warranting a higher crediting rate (based on a longer-term segment of the yield curve) to reflect the long-term value such deposits provide to the Corporation.

A credit provision is allocated to segments based on the expected long-term annual net charge off rates attributable to the credit risk of loans managed by the segment during the period. In contrast, the level of the consolidated provision for credit losses is determined based on an incurred loss model using the methodologies described in the Corporation's 2015 Annual Report on Form 10-K to assess the overall appropriateness of the allowance for loan losses and the allowance for unfunded commitments. The net effect of the credit provision is recorded in Risk Management and Shared Services. Indirect expenses incurred by certain centralized support areas are allocated to segments based on actual usage (for example, volume measurements) and other criteria. Certain types of administrative expense and bank-wide expense accruals (including amortization of core deposit and other intangible assets associated with acquisitions) are generally not allocated to segments. Income taxes are allocated to segments based on the Corporation's estimated effective tax rate, with certain segments adjusted for any tax-exempt income or non-deductible expenses. Equity is allocated to the segments based on regulatory capital requirements and in proportion to an assessment of the inherent risks associated with the business of the segment (including interest, credit and operating risk).

The management accounting policies and processes utilized in compiling segment financial information are highly subjective and, unlike financial accounting, are not based on authoritative guidance similar to U.S. generally accepted accounting principles. As a result, reported segments and the financial information of the reported segments are not necessarily comparable with similar information reported by other financial institutions. Furthermore, changes in management structure or allocation methodologies and procedures may result in changes in previously reported segment financial data.

A brief description of each business segment is presented below. A more in-depth discussion of these segments can be found in the Segment Reporting footnote in the Corporation's 2015 Annual Report on Form 10-K. There have been no changes in the Corporation's segments since December 31, 2015.

The Corporate and Commercial Specialty segment serves a wide range of customers including larger businesses, developers, not-for-profits, municipalities, and financial institutions. The Community, Consumer, and Business segment serves individuals, as well as small and mid-sized businesses. The Risk Management and Shared Services segment includes key shared operational functions and also includes residual revenue and expenses, representing the difference between actual amounts incurred and the amounts allocated to operating segments, including interest rate risk residuals (FTP mismatches) and credit risk and provision residuals (long-term credit charge mismatches).

Information about the Corporation's segments is presented below.

Segment Income Statement Data

($ in Thousands)	Corporate and Commercial Specialty	Community, Consumer, and Business	Risk Management and Shared Services	Consolidated Total
Nine Months Ended September 30, 2016				
Net interest income	$ 242,800	$ 257,848	$ 26,590	$ 527,238
Noninterest income	35,172	207,460	17,962	260,594
Total revenue	277,972	465,308	44,552	787,832
Credit provision*	38,933	18,357	(2,290)	55,000
Noninterest expense	109,511	370,714	43,420	523,645
Income before income taxes	129,528	76,237	3,422	209,187
Income tax expense (benefit)	42,623	26,683	(5,560)	63,746
Net income	$ 86,905	$ 49,554	$ 8,982	$ 145,441
Return on average allocated capital (ROCET1)**	10.9%	10.5%	1.4%	9.7%
Nine Months Ended September 30, 2015				
Net interest income	$ 230,130	$ 261,951	$ 12,729	$ 504,810
Noninterest income	36,222	199,753	10,385	246,360
Total revenue	266,352	461,704	23,114	751,170
Credit provision*	30,312	19,625	(32,437)	17,500
Noninterest expense	106,643	366,121	49,590	522,354
Income before income taxes	129,397	75,958	5,961	211,316
Income tax expense (benefit)	44,384	26,585	(5,163)	65,806
Net income	$ 85,013	$ 49,373	$ 11,124	$ 145,510
Return on average allocated capital (ROCET1)**	11.8%	10.3%	3.9%	10.3%

Segment Balance Sheet Data

($ in Thousands)	Corporate and Commercial Specialty	Community, Consumer, and Business	Risk Management and Shared Services	Consolidated Total
Average Balances for YTD September 2016				
Average earning assets	$ 10,097,995	$ 9,287,158	$ 6,508,356	$ 25,893,509
Average loans	10,088,777	9,285,848	166,447	19,541,072
Average deposits	5,906,695	11,320,106	3,531,614	20,758,415
Average allocated capital (CET1)**	$ 1,063,598	$ 631,484	$ 225,813	$ 1,920,895
Average Balances for YTD September 2015				
Average earning assets	$ 9,373,312	$ 8,719,078	$ 6,326,369	$ 24,418,759
Average loans	9,363,936	8,719,078	71,378	18,154,392
Average deposits	5,730,918	10,786,342	3,145,612	19,662,872
Average allocated capital (CET1)**	$ 966,746	$ 640,116	$ 213,750	$ 1,820,612

Segment Income Statement Data

($ in Thousands)	Corporate and Commercial Specialty	Community, Consumer, and Business	Risk Management and Shared Services	Consolidated Total
Three Months Ended September 30, 2016				
Net interest income	$ 83,567	$ 87,274	$ 7,693	$ 178,534
Noninterest income	12,623	78,580	4,031	95,234
Total revenue	96,190	165,854	11,724	273,768
Credit provision*	11,080	5,969	3,951	21,000
Noninterest expense	37,968	127,454	9,892	175,314
Income (loss) before income taxes	47,142	32,431	(2,119)	77,454
Income tax expense (benefit)	14,907	11,351	(2,620)	23,638
Net income	$ 32,235	$ 21,080	$ 501	$ 53,816
Return on average allocated capital (ROCET1)**	11.7%	13.2%	(2.9)%	10.5%
Three Months Ended September 30, 2015				
Net interest income	$ 78,283	$ 88,209	$ 4,017	$ 170,509
Noninterest income	11,305	64,879	3,881	80,065
Total revenue	89,588	153,088	7,898	250,574
Credit provision*	10,851	5,963	(8,814)	8,000
Noninterest expense	37,293	122,361	11,931	171,585
Income before income taxes	41,444	24,764	4,781	70,989
Income tax expense (benefit)	13,955	8,667	(1,071)	21,551
Net income	$ 27,489	$ 16,097	$ 5,852	$ 49,438
Return on average allocated capital (ROCET1)**	11.0%	10.1%	6.7 %	10.2%

Segment Balance Sheet Data

($ in Thousands)	Corporate and Commercial Specialty	Community, Consumer, and Business	Risk Management and Shared Services	Consolidated Total
Average Balances for 3Q16				
Average earning assets	$ 10,441,454	$ 9,414,718	$ 6,577,991	$ 26,434,163
Average loans	10,435,341	9,413,401	204,034	20,052,776
Average deposits	6,227,305	11,526,639	3,650,081	21,404,025
Average allocated capital (CET1)**	$ 1,091,624	$ 633,392	$ 227,600	$ 1,952,616
Average Balances for 3Q15				
Average earning assets	$ 9,475,469	$ 8,917,831	$ 6,441,043	$ 24,834,343
Average loans	9,466,761	8,917,831	68,157	18,452,749
Average deposits	6,044,306	10,969,172	3,280,121	20,293,599
Average allocated capital (CET1)**	$ 988,283	$ 632,878	$ 216,275	$ 1,837,436

* The consolidated credit provision is equal to the actual reported provision for credit losses.

** The Federal Reserve establishes capital adequacy requirements for the Corporation. Average allocated capital represents average common equity Tier 1, as defined by the Federal Reserve. For segment reporting purposes, the ROCET1, a non-GAAP financial measure, reflects return on average allocated common equity Tier 1 ("CET1"). The ROCET1 for the Risk Management and Shared Services segment and the Consolidated Total is inclusive of the annualized effect of the preferred stock dividends.

Note 16 Accumulated Other Comprehensive Income (Loss)

The following table summarizes the components of accumulated other comprehensive income (loss) at September 30, 2016 and 2015, changes during the three and nine month periods then ended, and reclassifications out of accumulated other comprehensive income (loss) during the three and nine month periods ended September 30, 2016 and 2015, respectively.

($ in Thousands)	Investments Securities Available For Sale	Defined Benefit Pension and Post Retirement Obligations	Accumulated Other Comprehensive Income (Loss)
Balance January 1, 2016	$ 459	$ (33,075)	$ (32,616)
Other comprehensive income before reclassifications	59,849	—	59,849
Amounts reclassified from accumulated other comprehensive income (loss):			
Investment securities gain, net	(6,201)	—	(6,201)
Personnel expense	—	1,531	1,531
Interest income (Amortization of net unrealized gains on available for sale securities transferred to held to maturity securities)	(4,465)	—	(4,465)
Income tax expense	(18,768)	(584)	(19,352)
Net other comprehensive income during period	30,415	947	31,362
Balance September 30, 2016	$ 30,874	$ (32,128)	$ (1,254)
Balance January 1, 2015	$ 18,512	$ (23,362)	$ (4,850)
Other comprehensive income before reclassifications	35,101	—	35,101
Amounts reclassified from accumulated other comprehensive income (loss):			
Investment securities gain, net	(4,038)	—	(4,038)
Personnel expense	—	1,729	1,729
Income tax expense	(11,907)	(659)	(12,566)
Net other comprehensive income during period	19,156	1,070	20,226
Balance September 30, 2015	$ 37,668	$ (22,292)	$ 15,376

($ in Thousands)	Investments Securities Available For Sale	Defined Benefit Pension and Post Retirement Obligations	Accumulated Other Comprehensive Income (Loss)
Balance July 1, 2016	$ 45,916	$ (32,463)	$ 13,453
Other comprehensive loss before reclassifications	(22,894)	—	(22,894)
Amounts reclassified from accumulated other comprehensive income (loss):			
Investment securities loss, net	13	—	13
Personnel expense	—	541	541
Interest income (Amortization of net unrealized gains on available for sale securities transferred to held to maturity securities)	(1,441)	—	(1,441)
Income tax (expense) benefit	9,280	(206)	9,074
Net other comprehensive income (loss) during period	(15,042)	335	(14,707)
Balance September 30, 2016	$ 30,874	$ (32,128)	$ (1,254)
Balance July 1, 2015	$ 25,282	$ (22,688)	$ 2,594
Other comprehensive income before reclassifications	22,907	—	22,907
Amounts reclassified from accumulated other comprehensive income (loss):			
Investment securities gain, net	(2,796)	—	(2,796)
Personnel expense	—	639	639
Income tax expense	(7,725)	(243)	(7,968)
Net other comprehensive income during period	12,386	396	12,782
Balance September 30, 2015	$ 37,668	$ (22,292)	$ 15,376

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

Special Note Regarding Forward-Looking Statements

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

All forward-looking statements contained in this report or which may be contained in future statements made for or on behalf of the Corporation are based upon information available at the time the statement is made and the Corporation assumes no obligation to update any forward-looking statements, except as required by federal securities law. Forward-looking statements are subject to significant risks and uncertainties, and the Corporation's actual results may differ materially from the expected results discussed in such forward-looking statements. Factors that might cause actual results to differ from the results discussed in forward-looking statements include, but are not limited to, the risk factors in Item 1A, Risk Factors, in the Corporation's Annual Report on Form 10-K for the year ended December 31, 2015, and as may be described from time to time in the Corporation's subsequent SEC filings.

Overview

The following discussion and analysis is presented to assist in the understanding and evaluation of the Corporation's financial condition and results of operations. It is intended to complement the unaudited consolidated financial statements, footnotes, and supplemental financial data appearing elsewhere in this Form 10-Q and should be read in conjunction therewith. Management continually evaluates strategic acquisition opportunities and other various strategic alternatives that could involve the sale or acquisition of branches or other assets, or the consolidation or creation of subsidiaries.

Performance Summary

- Quarter average loans of $20.1 billion increased $411 million, or 2% from the second quarter of 2016. Total average commercial lending grew 10% from the comparable quarter in 2015.
- Quarter average deposits of $21.4 billion increased $1.1 billion, or 5% from the second quarter of 2016. Average noninterest-bearing deposits grew 13% from the comparable quarter in 2015.
- Net interest income of $179 million for the third quarter of 2016 was up $2 million, or 1% from the second quarter of 2016. Net interest income grew 5% from the comparable quarter of 2015. Net interest margin of 2.77% was down from 2.81% in the second quarter of 2016 and down 5 basis points from the third quarter of 2015.
- Provision for credit losses of $21 million was up $7 million from the second quarter of 2016.
- Noninterest income of $95 million was up $13 million, or 16% from the second quarter of 2016.
- Noninterest expense of $175 million was up $1 million, or 1% from the second quarter of 2016.

TABLE 1: Summary Results of Operations: Trends
(In thousands, except per share data)

	YTD Sep 2016	YTD Sep 2015	3Q16	2Q16	1Q16	4Q15	3Q15
Net income	$ 145,441	$ 145,510	$ 53,816	$ 49,091	$ 42,534	$ 42,791	$ 49,438
Net income available to common equity	$ 138,886	$ 140,553	$ 51,628	$ 46,922	$ 40,336	$ 40,593	$ 47,254
Earnings per common share - basic	$ 0.92	$ 0.93	$ 0.34	$ 0.31	$ 0.27	$ 0.27	$ 0.31
Earnings per common share - diluted	$ 0.92	$ 0.92	$ 0.34	$ 0.31	$ 0.27	$ 0.27	$ 0.31
Effective tax rate	30.47%	31.14%	30.52%	30.39%	30.51%	26.82%	30.36%

INCOME STATEMENT ANALYSIS

Net Interest Income

TABLE 2: Net Interest Income Analysis

	Nine months ended September 30,					
	2016			2015		
	Average Balance	Interest Income / Expense	Average Yield / Rate	Average Balance	Interest Income / Expense	Average Yield / Rate
	($ in Thousands)					
ASSETS						
Earning assets:						
Loans:(1)(2)(3)						
Commercial and business lending	$ 7,391,735	$ 177,457	3.21%	$ 7,083,736	$ 168,188	3.17%
Commercial real estate lending	4,660,538	120,758	3.46%	4,171,250	108,785	3.49%
Total commercial	12,052,273	298,215	3.30%	11,254,986	276,973	3.29%
Residential mortgage	6,102,383	145,384	3.18%	5,435,277	134,923	3.31%
Retail	1,386,416	49,337	4.75%	1,464,129	50,851	4.64%
Total loans	19,541,072	492,936	3.37%	18,154,392	462,747	3.40%
Investment securities:						
Taxable	4,953,410	72,734	1.96%	4,845,424	73,897	2.03%
Tax-exempt(1)	1,076,603	36,513	4.52%	963,458	35,754	4.95%
Other short-term investments	322,424	3,449	1.43%	455,485	4,952	1.45%
Investments and other	6,352,437	112,696	2.37%	6,264,367	114,603	2.44%
Total earning assets	25,893,509	$ 605,632	3.12%	24,418,759	$ 577,350	3.16%
Other assets, net	2,478,574			2,452,790		
Total assets	$ 28,372,083			$ 26,871,549		
LIABILITIES AND STOCKHOLDERS' EQUITY						
Interest-bearing liabilities:						
Interest-bearing deposits:						
Savings	$ 1,420,398	$ 662	0.06%	$ 1,329,548	$ 751	0.08%
Interest-bearing demand	3,672,705	7,113	0.26%	3,218,089	3,049	0.13%
Money market	9,071,388	19,709	0.29%	9,100,867	12,223	0.18%
Time deposits	1,550,693	9,078	0.78%	1,616,474	8,258	0.68%
Total interest-bearing deposits	15,715,184	36,562	0.31%	15,264,978	24,281	0.21%
Federal funds purchased and securities sold under agreements to repurchase	629,976	1,000	0.21%	632,714	714	0.15%
Other short-term funding	769,049	1,656	0.29%	170,300	279	0.22%
Total short-term funding	1,399,025	2,656	0.25%	803,014	993	0.17%
Long-term funding	2,964,807	23,657	1.06%	3,273,898	32,159	1.31%
Total short and long-term funding	4,363,832	26,313	0.80%	4,076,912	33,152	1.08%
Total interest-bearing liabilities	20,079,016	$ 62,875	0.42%	19,341,890	$ 57,433	0.40%
Noninterest-bearing demand deposits	5,043,231			4,397,894		
Other liabilities	247,624			251,937		
Stockholders' equity	3,002,212			2,879,828		
Total liabilities and stockholders' equity	$ 28,372,083			$ 26,871,549		
Interest rate spread			2.70%			2.76%
Net free funds			0.10%			0.08%
Fully tax-equivalent net interest income and net interest margin		$ 542,757	2.80%		$ 519,917	2.84%
Fully tax-equivalent adjustment		15,519			15,107	
Net interest income		$ 527,238			$ 504,810	

TABLE 2: Net Interest Income Analysis (Continued)

	Quarter ended								
	September 30, 2016			June 30, 2016			September 30, 2015		
	Average Balance	Interest Income / Expense	Average Yield / Rate	Average Balance	Interest Income / Expense	Average Yield / Rate	Average Balance	Interest Income / Expense	Average Yield / Rate
	($ in Thousands)								
ASSETS									
Earning assets:									
Loans:(1)(2)(3)									
Commercial and business lending	$ 7,577,470	$ 61,147	3.21%	$ 7,474,633	$ 59,052	3.18%	$ 7,089,664	$ 55,944	3.13%
Commercial real estate lending	4,855,827	41,600	3.41%	4,654,111	40,169	3.47%	4,260,329	36,694	3.42%
Total commercial	12,433,297	102,747	3.29%	12,128,744	99,221	3.29%	11,349,993	92,638	3.24%
Residential mortgage	6,255,264	49,254	3.15%	6,129,924	48,382	3.16%	5,658,253	47,004	3.32%
Retail	1,364,215	16,283	4.77%	1,383,317	16,414	4.75%	1,444,503	16,913	4.67%
Total loans	20,052,776	168,284	3.35%	19,641,985	164,017	3.35%	18,452,749	156,555	3.38%
Investment securities:									
Taxable	4,859,750	22,948	1.89%	4,967,437	24,270	1.95%	4,968,609	24,937	2.01%
Tax-exempt(1)	1,119,873	12,456	4.45%	1,064,252	12,077	4.54%	997,489	12,112	4.86%
Other short-term investments	401,764	1,064	1.06%	294,375	1,318	1.80%	415,496	1,489	1.43%
Investments and other	6,381,387	36,468	2.29%	6,326,064	37,665	2.38%	6,381,594	38,538	2.42%
Total earning assets	26,434,163	$ 204,752	3.09%	25,968,049	$ 201,682	3.12%	24,834,343	$ 195,093	3.13%
Other assets, net	2,534,209			2,674,427			2,442,078		
Total assets	$ 28,968,372			$ 28,642,476			$ 27,276,421		
LIABILITIES AND STOCKHOLDERS' EQUITY									
Interest-bearing liabilities:									
Interest-bearing deposits:									
Savings	$ 1,448,223	$ 198	0.05%	$ 1,445,020	$ 228	0.06%	$ 1,357,677	$ 254	0.07%
Interest-bearing demand	4,151,708	2,937	0.28%	3,640,733	2,144	0.24%	3,199,391	962	0.12%
Money market	9,088,943	6,956	0.30%	8,692,782	6,309	0.29%	9,538,030	4,350	0.18%
Time deposits	1,553,349	3,027	0.78%	1,540,424	2,997	0.78%	1,624,661	2,955	0.72%
Total interest-bearing deposits	16,242,223	13,118	0.32%	15,318,959	11,678	0.31%	15,719,759	8,521	0.22%
Federal funds purchased and securities sold under agreements to repurchase	655,825	326	0.20%	674,360	378	0.23%	649,891	248	0.15%
Other short-term funding	324,623	296	0.36%	1,209,511	845	0.28%	154,811	83	0.21%
Total short-term funding	980,448	622	0.25%	1,883,871	1,223	0.26%	804,702	331	0.16%
Long-term funding	3,256,099	7,229	0.89%	3,052,581	6,923	0.91%	3,021,119	10,645	1.41%
Total short and long-term funding	4,236,547	7,851	0.74%	4,936,452	8,146	0.66%	3,825,821	10,976	1.15%
Total interest-bearing liabilities	20,478,770	$ 20,969	0.41%	20,255,411	$ 19,824	0.39%	19,545,580	$ 19,497	0.40%
Noninterest-bearing demand deposits	5,161,802			4,969,994			4,573,840		
Other liabilities	281,442			228,027			237,725		
Stockholders' equity	3,046,358			3,189,044			2,919,276		
Total liabilities and stockholders' equity	$ 28,968,372			$ 28,642,476			$ 27,276,421		
Interest rate spread			2.68%			2.73%			2.73%
Net free funds			0.09%			0.08%			0.09%
Fully tax-equivalent net interest income and net interest margin		$ 183,783	2.77%		$ 181,858	2.81%		$ 175,596	2.82%
Fully tax-equivalent adjustment		5,249			5,141			5,087	
Net interest income		$ 178,534			$ 176,717			$ 170,509	

(1) The yield on tax-exempt loans and securities is computed on a fully tax-equivalent basis using a tax rate of 35% for all periods presented and is net of the effects of certain disallowed interest deductions.
(2) Nonaccrual loans and loans held for sale have been included in the average balances.
(3) Interest income includes net loan fees.

Notable contributions to the change in net interest income were:

- Net interest income in the consolidated statements of income (which excludes the fully tax-equivalent adjustment) was $527 million for the first nine months of 2016 compared to $505 million for the first nine months of 2015. See sections “Interest Rate Risk” and “Quantitative and Qualitative Disclosures about Market Risk” for a discussion of interest rate risk and market risk.

- Fully tax-equivalent net interest income of $543 million for the first nine months of 2016 was $23 million higher than the first nine months of 2015. The increase in fully tax-equivalent net interest income was attributable to a favorable volume variance (as balance sheet changes in both volume and mix increased fully tax-equivalent net interest income by $37 million) and a $1 million day variance (one additional day in the first nine months of 2016), partially offset by an unfavorable rate variance (as the impact of changes in the interest rate environment and product pricing decreased fully tax-equivalent net interest income by $15 million).

- Average earning assets of $25.9 billion for the first nine months of 2016 were $1.5 billion, or 6% higher than the first nine months of 2015. Average loans increased $1.4 billion, or 8%, primarily due to a $797 million increase in commercial loans and a $667 million increase in residential mortgage loans. Average securities and short-term investments increased $88 million, primarily due to a $113 million increase in municipal securities and a $109 million increase in mortgage-related securities, partially offset by a $153 million decrease in interest-bearing deposits in other banks.

- Average interest-bearing liabilities of $20.1 billion for the first nine months of 2016 were up $737 million, or 4% versus the first nine months of 2015. On average, interest-bearing deposits increased $450 million and noninterest-bearing demand deposits (a principal component of net free funds) increased $645 million. On average, short and long-term funding increased $287 million compared to the first nine months of 2015, including a $596 million increase in short-term funding, partially offset by a $309 million decrease in long-term funding. The Corporation redeemed $430 million of senior notes in February 2016.

- The net interest margin for the first nine months of 2016 was 2.80%, compared to 2.84% for the first nine months of 2015. The 4 basis points ("bp") decline in net interest margin was attributable to a 6 bp decrease in interest rate spread (the sum of a 4 bp decrease in the yield on earning assets and a 2 bp increase in the cost of interest-bearing liabilities) partially offset by a 2 bp increase in the net free funds benefit.

- For the first nine months of 2016, loan yields decreased 3 bp to 3.37%, due to competitive pricing pressures in this low interest rate environment. The yield on investment securities and other short-term investments decreased 7 bp to 2.37%, and was also impacted by the low interest rate environment and higher prepayment speeds of mortgage-related securities purchased at a premium.

- The cost of interest-bearing liabilities was 0.42% for the first nine months of 2016, 2 bp higher than the first nine months of 2015. The increase was due to a 10 bp increase in the average cost of interest-bearing deposits (to 0.31%) and an 8 bp increase in the cost of short-term funding (to 0.25%), both primarily due to the December 2015 Federal Reserve interest rate increase; partially offset by a 25 bp decrease in the cost of long-term funding (to 1.06%), primarily due to the early redemption of $430 million of senior notes in February 2016.

Provision for Credit Losses

The provision for credit losses (which includes the provision for loan losses and the provision for unfunded commitments) for the nine months ended September 30, 2016 was $55 million, compared to $18 million for the nine months ended September 30, 2015. Net charge offs were $56 million (representing 0.38% of average loans) for the nine months ended September 30, 2016, compared to $22 million (representing 0.16% of average loans) for the nine months ended September 30, 2015. The ratio of the allowance for loan losses to total loans was 1.36% and 1.42% at September 30, 2016 and 2015, respectively.

The provision for credit losses is predominantly a function of the Corporation’s reserving methodology and judgments as to other qualitative and quantitative factors used to determine the appropriate level of the allowance for loan losses and the allowance for unfunded commitments, which focuses on changes in the size and character of the loan portfolio, changes in levels of impaired and other nonaccrual loans, historical losses and delinquencies in each portfolio category, the level of loans sold or transferred to held for sale, the risk inherent in specific loans, concentrations of loans to specific borrowers or industries, existing economic conditions, the fair value of underlying collateral, and other factors which could affect potential credit losses. See additional discussion under sections, “Loans,” “Credit Risk,” “Nonaccrual Loans, Potential Problem Loans, and Other Real Estate Owned,” and “Allowance for Credit Losses.”

Noninterest Income

TABLE 3: Noninterest Income

($ in Thousands)	YTD Sep 2016	YTD Sep 2015	YTD Change	3Q16	2Q16	1Q16	4Q15	3Q15	3Q16 Change vs 2Q16	3Q16 Change vs 3Q15
Trust service fees	$ 34,656	$ 36,875	(6)%	$ 11,700	$ 11,509	$ 11,447	$ 11,965	$ 12,273	2 %	(5)%
Service charges on deposit accounts	50,162	48,894	3 %	17,445	16,444	16,273	16,577	17,385	6 %	— %
Card-based and other nondeposit fees	37,485	38,631	(3)%	12,777	12,717	11,991	12,694	12,618	— %	1 %
Insurance commissions	62,818	57,366	10 %	19,431	22,005	21,382	17,997	17,561	(12)%	11 %
Brokerage and annuity commissions	12,047	11,684	3 %	4,155	4,098	3,794	3,694	3,809	1 %	9 %
Subtotal ("fee-based revenue")	197,168	193,450	2 %	65,508	66,773	64,887	62,927	63,646	(2)%	3 %
Mortgage banking income	38,190	32,588	17 %	21,903	8,300	7,987	10,851	9,557	164 %	129 %
Mortgage servicing rights expense	11,628	8,596	35 %	3,612	4,233	3,783	2,580	2,914	(15)%	24 %
Mortgage banking, net	26,562	23,992	11 %	18,291	4,067	4,204	8,271	6,643	350 %	175 %
Capital market fees, net	14,343	7,329	96 %	7,012	3,793	3,538	3,423	2,170	85 %	223 %
Bank owned life insurance income ("BOLI")	11,033	7,704	43 %	3,290	2,973	4,770	2,092	2,448	11 %	34 %
Other	6,140	6,916	(11)%	2,180	1,789	2,171	2,580	2,118	22 %	3 %
Subtotal (“fee income”)	255,246	239,391	7 %	96,281	79,395	79,570	79,293	77,025	21 %	25 %
Asset gains (losses), net	(853)	2,931	(129)%	(1,034)	(343)	524	(391)	244	201 %	(524)%
Investment securities gains (losses), net	6,201	4,038	54 %	(13)	3,116	3,098	4,095	2,796	(100)%	(100)%
Total noninterest income	$ 260,594	$ 246,360	6 %	$ 95,234	$ 82,168	$ 83,192	$ 82,997	$ 80,065	16 %	19 %
Mortgage loans originated for sale during period	$ 983,930	$ 911,133	8 %	$ 466,092	$ 323,989	$ 193,849	$ 316,973	$ 291,931	44 %	60 %
Trust assets under management, at market value	$ 8,178,839	$ 7,625,613	7 %	$ 8,178,839	$ 7,944,187	$ 7,843,512	$ 7,729,131	$ 7,625,613	3 %	7 %

Notable contributions to the change in noninterest income were:

- Fee-based revenue was $197 million for the nine months ended September 30, 2016, an increase of $4 million (2%) compared to the nine months ended September 30, 2015. Insurance commissions were $63 million, an increase of $5 million (10%) compared to the nine months ended September 30, 2015, primarily attributable to increased property and casualty and employee benefit related commissions.

- Net mortgage banking income for the nine months ended September 30, 2016 was $27 million, up $3 million (11%) compared to the nine months ended September 30, 2015. Net mortgage banking consists of gross mortgage banking income less mortgage servicing rights expense. Gross mortgage banking income includes servicing fees, the gain or loss on sales of mortgage loans to the secondary market, changes to the mortgage repurchase reserve, and the fair value adjustments on the mortgage derivatives. Gross mortgage banking income increased $6 million, primarily due to gross gains of $9 million on portfolio loan sales during the third quarter of 2016.

- Mortgage servicing rights expense includes both the amortization of the mortgage servicing rights asset and changes to the valuation allowance associated with the mortgage servicing rights asset. Mortgage servicing rights expense is affected by the size of the servicing portfolio, as well as the changes in the estimated fair value of the mortgage servicing rights asset. Mortgage servicing rights expense was $12 million for the nine months ended September 30, 2016, up $3 million (35%) compared to the nine months ended September 30, 2015. The increase in mortgage servicing rights expense was primarily due to a $3 million addition to the valuation reserve for the nine months ended September 30, 2016 compared to a slight recovery during the nine months ended September 30, 2015, reflecting lower interest rates at September 30, 2016. See section “Critical Accounting Policies," in the Corporation’s 2015 Annual Report on Form 10-K, Note 8, “Goodwill and Other Intangible Assets,” and Note 13, “Fair Value Measurements,” of the notes to consolidated financial statements for additional disclosure.

- Capital market fees were $14 million, an increase of $7 million (96%) compared to the nine months ended September 30, 2015. The increase was primarily due to a $2 million increase in syndication fees and a $3 million increase in fee revenue resulting from a higher volume of interest rate-related derivatives.

- Net investment securities gains of $6 million and $4 million for the nine months ended September 30, 2016 and 2015, respectively, were due to the sale of FNMA and FHLMC mortgage-related securities and reinvestment into GNMA mortgage-related securities. See Note 6, "Investment Securities" of the notes to consolidated financial statements for additional information on the investment securities portfolio.

- Net asset losses of $1 million for the first nine months of 2016 were primarily due to impairment losses on two historic tax credit investments that were placed in service during the third quarter of 2016. Net asset gains of $3 million for the first nine months of 2015 were primarily due to the gain on sales of alternative equity investments.

Noninterest Expense

TABLE 4: Noninterest Expense

($ in Thousands)	YTD Sep 2016	YTD Sep 2015	YTD Change	3Q16	2Q16	1Q16	4Q15	3Q15	3Q16 Change vs 2Q16	3Q16 Change vs 3Q15
Personnel expense	$ 307,346	$ 304,272	1 %	$ 103,819	$ 102,129	$ 101,398	$ 100,469	$ 101,134	2 %	3 %
Occupancy	42,379	46,178	(8)%	15,362	13,215	13,802	14,718	14,187	16 %	8 %
Equipment	16,161	17,514	(8)%	5,319	5,396	5,446	5,695	6,003	(1)%	(11)%
Technology	42,887	46,660	(8)%	14,173	14,450	14,264	13,953	14,748	(2)%	(4)%
Business development and advertising	20,053	18,120	11 %	5,251	6,591	8,211	7,652	5,964	(20)%	(12)%
Other intangible amortization	1,568	2,574	(39)%	525	539	504	520	885	(3)%	(41)%
Loan expense	10,198	9,982	2 %	3,535	3,442	3,221	4,120	3,305	3 %	7 %
Legal and professional fees	14,685	13,089	12 %	4,804	4,856	5,025	3,963	4,207	(1)%	14 %
Foreclosure / OREO expense, net	4,167	3,071	36 %	960	1,330	1,877	2,371	645	(28)%	49 %
FDIC expense	25,500	18,500	38 %	9,000	8,750	7,750	7,500	6,000	3 %	50 %
Other	38,701	42,394	(9)%	12,566	13,662	12,473	15,032	14,507	(8)%	(13)%
Total noninterest expense	$ 523,645	$ 522,354	— %	$ 175,314	$ 174,360	$ 173,971	$ 175,993	$ 171,585	1 %	2 %
Average full-time equivalent employees	4,422	4,436		4,477	4,415	4,374	4,378	4,421		

Notable contributions to the change in noninterest expense were:

- Personnel expense (which includes salary-related expenses and fringe benefit expenses) was $307 million for the nine months ended September 30, 2016, up $3 million (1%) from the nine months ended September 30, 2015. The increase was primarily due to a $2 million increase in health insurance costs.

- Nonpersonnel noninterest expenses on a combined basis were $216 million, down $2 million (1%) compared to the nine months ended September 30, 2015. Occupancy expense was down $4 million (8%), primarily attributable to ongoing consolidation efforts and the Corporation's acquisition of the Milwaukee Center. Technology expense was down $4 million (8%) from the nine months ended September 30, 2015, primarily driven by a reduction in external technology support services. FDIC expense was $7 million (38%) higher than the comparable period in 2015, reflecting growth in criticized and risk-weighted assets. All remaining noninterest expense categories on a combined basis were down $1 million (1%).

Income Taxes

The Corporation recognized income tax expense of $64 million for the nine months ended September 30, 2016 compared to income tax expense of $66 million for the nine months ended September 30, 2015. The change in income tax expense was primarily due to the decrease in the level of pretax income between periods, an increase in proceeds from BOLI policy non-taxable redemptions and an increase in benefits from tax credits. The effective tax rate was 30.47% for the nine months ended September 30, 2016, compared to an effective tax rate of 31.14% for the nine months ended September 30, 2015.

Income tax expense recorded in the consolidated statements of income involves the interpretation and application of certain accounting pronouncements and federal and state tax laws and regulations, and is, therefore, considered a critical accounting policy. The Corporation is subject to examination by various taxing authorities. Examination by taxing authorities may impact the amount of tax expense and / or reserve for uncertainty in income taxes if their interpretations differ from those of management, based on their judgments about information available to them at the time of their examinations. See section “Critical Accounting Policies,” in the Corporation’s 2015 Annual Report on Form 10-K for additional information on income taxes.

BALANCE SHEET ANALYSIS

- At September 30, 2016, total assets were $29.2 billion, up $1.4 billion (5%) from December 31, 2015 and up $1.7 billion (6%) from September 30, 2015.
- Loans of $19.8 billion at September 30, 2016 were up $1.1 billion (6%) from December 31, 2015 and were up $1.3 billion (7%) from September 30, 2015. See section "Loans" and Note 7 "Loans" for additional information on loans.
- Premises and equipment, net of $330 million increased $62 million (23%) from December 31, 2015 and increased $59 million (22%) from September 30, 2015, primarily due to the purchase of the Milwaukee Center.
- At September 30, 2016, total deposits of $21.7 billion were up $740 million (4%) from December 31, 2015 and were up $1.2 billion (6%) from September 30, 2015. See section "Deposits and Customer Funding" for additional information on deposits.
- Short and long-term funding of $4.0 billion at September 30, 2016 increased $491 million (14%) since year-end 2015, primarily due to a $406 million increase in short-term funding and a $515 million increase in long-term FHLB advances, partially offset by the redemption of $430 million in senior notes in February 2016. See Note 9 "Short and Long-Term Funding" for additional information on short and long-term funding.

Loans

TABLE 5: Period End Loan Composition

	September 30, 2016		June 30, 2016		March 31, 2016		December 31, 2015		September 30, 2015	
	Amount	% of Total	Amount	% of Total	Amount	% of Total	Amount	% of Total	Amount	% of Total
					($ in Thousands)					
Commercial and industrial	$ 6,721,557	34%	$ 6,701,986	34%	$ 6,511,648	34%	$ 6,190,683	33%	$ 6,128,080	33%
Commercial real estate — owner occupied	892,678	4%	921,736	5%	917,285	5%	918,212	5%	966,689	5%
Commercial and business lending	7,614,235	38%	7,623,722	39%	7,428,933	39%	7,108,895	38%	7,094,769	38%
Commercial real estate — investor	3,530,370	18%	3,495,791	18%	3,276,733	17%	3,234,266	17%	3,183,352	17%
Real estate construction	1,314,431	7%	1,285,573	6%	1,184,398	6%	1,162,145	6%	1,124,280	6%
Commercial real estate lending	4,844,801	25%	4,781,364	24%	4,461,131	23%	4,396,411	23%	4,307,632	23%
Total commercial	12,459,036	63%	12,405,086	63%	11,890,064	62%	11,505,306	61%	11,402,401	61%
Residential mortgage	6,034,166	30%	6,035,720	30%	5,944,457	31%	5,783,267	31%	5,682,178	31%
Home equity revolving lines of credit	851,382	4%	861,311	4%	867,860	4%	883,759	5%	883,573	5%
Home equity loans junior liens	100,212	1%	107,460	1%	115,134	1%	122,043	1%	130,892	1%
Home equity	951,594	5%	968,771	5%	982,994	5%	1,005,802	6%	1,014,465	6%
Other consumer	399,209	2%	405,709	2%	409,725	2%	419,968	2%	425,729	2%
Total consumer	7,384,969	37%	7,410,200	37%	7,337,176	38%	7,209,037	39%	7,122,372	39%
Total loans	$19,844,005	100%	$19,815,286	100%	$19,227,240	100%	$18,714,343	100%	$18,524,773	100%
Commercial real estate - investor and Real estate construction loan detail:										
Farmland	$ 6,530	—%	$ 6,181	—%	$ 5,557	—%	$ 7,135	—%	$ 9,645	—%
Multi-family	1,030,976	29%	1,076,549	31%	974,051	30%	932,360	29%	921,456	29%
Non-owner occupied	2,492,864	71%	2,413,061	69%	2,297,125	70%	2,294,771	71%	2,252,251	71%
Commercial real estate — investor	$ 3,530,370	100%	$ 3,495,791	100%	$ 3,276,733	100%	$ 3,234,266	100%	$ 3,183,352	100%
1-4 family construction	$ 330,250	25%	$ 353,244	27%	$ 320,984	27%	$ 309,396	27%	$ 315,538	28%
All other construction	984,181	75%	932,329	73%	863,414	73%	852,749	73%	808,742	72%
Real estate construction	$ 1,314,431	100%	$ 1,285,573	100%	$ 1,184,398	100%	$ 1,162,145	100%	$ 1,124,280	100%

- Commercial and business lending was $7.6 billion and represented 38% of total loans at September 30, 2016, an increase of $505 million (7%) from December 31, 2015 and an increase of $519 million (7%) from September 30, 2015.
- Commercial real estate lending totaled $4.8 billion at September 30, 2016 and represented 25% of total loans, an increase of $448 million (10%) from December 31, 2015 and an increase of $537 million (12%) from September 30, 2015.
- Consumer loans were $7.4 billion and represented 37% of total loans at September 30, 2016, an increase of $176 million (2%) from December 31, 2015 and an increase of $263 million (4%) from September 30, 2015.

The Corporation has long-term guidelines relative to the proportion of Commercial and Business, Commercial Real Estate, and Consumer loans within the overall loan portfolio, with each targeted to represent 30-40% of the overall loan portfolio. The targeted long-term guidelines were unchanged during 2015 and the first nine months of 2016. Furthermore, certain sub-asset classes within the respective portfolios were further defined and dollar limitations were placed on these sub-portfolios. These guidelines and limits are reviewed quarterly and approved annually by the Enterprise Risk Committee of the Corporation's Board of Directors. These guidelines and limits are designed to create balance and diversification within the loan portfolios.

Credit Risk

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

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

The loan portfolio is widely diversified by types of borrowers, industry groups, and market areas within our branch footprint. Significant loan concentrations are considered to exist when there are amounts loaned to numerous borrowers engaged in similar activities that would cause them to be similarly impacted by economic or other conditions. At September 30, 2016, no significant concentrations existed in the Corporation's portfolio in excess of 10% of total loans.

Commercial and business lending:

The commercial and business lending classification primarily includes commercial loans to large corporations, middle market companies and small businesses and lease financing. At September 30, 2016, the largest industry group within the commercial and business lending category was the manufacturing sector which represented 7% of total loans and 18% of the total commercial and business lending portfolio. The next largest industry group within the commercial and business lending category included the finance and insurance portfolio, which represented 5% of total loans and represented 13% of the total commercial and business lending portfolio, followed by the power and utilities portfolio, which represented 5% of total loans and represented 12% of the total commercial and business lending portfolio. The remaining commercial and business lending portfolio is spread over a diverse range of industries, none of which exceed 5% of total loans. The credit risk related to commercial loans is largely influenced by general economic conditions and the resulting impact on a borrower's operations or on the value of underlying collateral, if any. Currently, a higher risk segment of the commercial and business lending portfolio is loans to borrowers supporting oil and gas exploration and production, which are further discussed under "Oil and gas lending" below. The oil and gas portfolio represented less than 4% of total loans at September 30, 2016.

Oil and gas lending:

The Corporation provides reserve based loans to oil and gas exploration and production firms. The Corporation's oil and gas lending team is based in Houston and focuses on serving the funding needs of small and mid-sized companies in the upstream oil and gas business. The oil and gas loans are generally first lien, reserve-based, and borrowing base dependent lines of credit. A small portion of the portfolio is in a second lien position to which the Corporation also holds the first lien position. The portfolio is diversified across all major U.S. geographic basins. The portfolio is diverse by product line with approximately 60% in oil and 40% in gas at September 30, 2016. Borrowing base re-determinations for the portfolio are completed at least twice a year and are based on detailed engineering reports and discounted cash flow analysis.

The following table summarizes information about the Corporation's oil and gas loan portfolio.

TABLE 6: Oil and Gas Loan Portfolio

	September 30, 2016	June 30, 2016	March 31, 2016	December 31, 2015	September 30, 2015
			($ in Millions)		
Pass	$ 351	$ 387	$ 402	$ 522	$ 587
Special mention	47	64	75	86	74
Potential problem	171	176	150	124	84
Nonaccrual	127	129	129	20	13
Total oil and gas related loans	$ 696	$ 756	$ 756	$ 752	$ 758
Quarter net charge offs	$ 22	$ 19	$ 13	$ —	$ —
Oil and gas related allowance	$ 38	$ 42	$ 49	$ 42	$ 29
Oil and gas related allowance ratio	5.5%	5.6%	6.5%	5.6%	3.8%

The Corporation proactively risk grades and reserves accordingly against the oil and gas loan portfolio. Lower market pricing and increased market volatility has led to downward migration within the portfolio. At September 30, 2016, nonaccrual oil and gas related loans totaled approximately $127 million, representing 18% of the oil and gas loan portfolio, an increase of $107 million from December 31, 2015. Potential problem oil and gas related loans totaled approximately $171 million at September 30, 2016, compared to $124 million at December 31, 2015. The increase in nonaccrual and potential problem oil and gas related loans was primarily due to downgrades associated with the issuance of revised regulatory guidance, as well as the negative outlook for a near term oil and gas price recovery. The allowance for loan losses on oil and gas related loans was $38 million at September 30, 2016 compared to $42 million December 31, 2015.

Commercial real estate - investor:

Commercial real estate-investor is comprised of loans secured by various non-owner occupied or investor income producing property types. At September 30, 2016, the largest property type exposures within the commercial real estate-investor portfolio were loans secured by multi-family properties which represented 5% of total loans and 29% of the total commercial real estate-investor portfolio and loans secured by retail properties which represented 5% of total loans and 28% of the total commercial real estate-investor portfolio. The remaining commercial real estate-investor portfolio is spread over various other property types, none of which exceed 5% of total loans. Credit risk is managed in a similar manner to commercial and business lending by employing sound underwriting guidelines, lending primarily to borrowers in local markets and businesses, periodically evaluating the underlying collateral, and formally reviewing the borrower's financial soundness and relationship on an ongoing basis.

Real estate construction:

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

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

TABLE 7: Commercial Loan Maturity Distribution and Interest Rate Sensitivity

	Maturity (1)				
September 30, 2016	Within 1 Year (2)	1-5 Years	After 5 Years	Total	% of Total
			($ in Thousands)		
Commercial and industrial	$ 5,760,243	$ 692,962	$ 268,352	$ 6,721,557	54%
Commercial real estate — investor	2,151,190	1,292,605	86,575	3,530,370	28%
Commercial real estate — owner occupied	333,692	424,067	134,919	892,678	7%
Real estate construction	1,033,765	252,316	28,350	1,314,431	11%
Total	$ 9,278,890	$ 2,661,950	$ 518,196	$ 12,459,036	100%
Fixed rate	$ 4,163,696	$ 926,300	$ 271,336	$ 5,361,332	43%
Floating or adjustable rate	5,115,194	1,735,650	246,860	7,097,704	57%
Total	$ 9,278,890	$ 2,661,950	$ 518,196	$ 12,459,036	100%
Percent by maturity distribution	75%	21%	4%	100%	

(1) Based upon scheduled principal repayments.
(2) Demand loans, past due loans, and overdrafts are reported in the "Within 1 Year" category.

The total commercial loans that were floating or adjustable rate was $7.1 billion (57%) at September 30, 2016. Including the $4.2 billion of fixed rate loans due within one year, 90% of the commercial loan portfolio noted above matures, re-prices, or resets within one year. Of the fixed rate loans due within one year, 95% have an original maturity within one year.

Residential mortgage:

Residential mortgage loans are primarily first lien home mortgages with a maximum loan to collateral value without credit enhancement (e.g. private mortgage insurance) of 80%. At September 30, 2016, the residential mortgage portfolio was comprised of $1.5 billion of fixed-rate residential real estate mortgages and $4.5 billion of variable-rate residential real estate mortgages, compared to $1.6 billion of fixed-rate mortgages and $4.2 billion variable-rate mortgages at December 31, 2015. During the third quarter of 2016, the Corporation sold $239 million of portfolio loans generating gross gains of $9 million. The residential mortgage portfolio is focused primarily in our three-state branch footprint, with approximately 89% of the outstanding loan balances in our branch footprint at September 30, 2016. As part of management's historical practice of originating and servicing residential mortgage loans, generally the Corporation's 30-year, agency conforming, fixed-rate residential real estate mortgage loans are sold in the secondary market with servicing rights retained. The majority of the on balance sheet residential mortgage portfolio consists of hybrid, adjustable rate mortgage loans with initial fixed rate terms of 3, 5, 7, or 10 years. The Corporation may retain certain fixed-rate residential real estate mortgages in its loan portfolio, including some jumbo mortgages and CRA-related mortgages.

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

Home equity:

Home equity consists of both home equity lines of credit and closed-end home equity loans, approximately 22% are first lien positions. Home equity loans and lines in a junior position at September 30, 2016 included approximately 40% for which the Corporation also owned or serviced the related first lien loan and approximately 60% where the Corporation did not service the related first lien loan.

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

The Corporation's underwriting and risk-based pricing guidelines for home equity lines and loans consist of a combination of both borrower FICO and the original LTV of the property securing the loan. Currently, for home equity products, the maximum acceptable LTV is 90% for customers with FICO scores exceeding 700. Home equity loans generally have a 20 year term and are fixed rate with principal and interest payments required, while home equity lines are generally tied to floating rate indices.

Based upon outstanding balances at September 30, 2016, the following table presents the periods when home equity lines of credit revolving periods are scheduled to end.

TABLE 8: Home Equity Line of Credit - Revolving Period End Dates

	$ in Thousands	% of Total
Less than 5 years	$ 44,365	5%
5 — 10 years	215,540	25%
Over 10 years	591,477	70%
Total home equity revolving lines of credit	$ 851,382	100%

Other consumer:

Other consumer consists of student loans, as well as short-term and other personal installment loans and credit cards. The Corporation had $221 million and $249 million of student loans at September 30, 2016, and December 31, 2015, respectively, the majority of which are government guaranteed. Credit risk for non-government guaranteed student, short-term and personal installment loans and credit cards is influenced by general economic conditions, the characteristics of individual borrowers, and the nature of the loan collateral. Risks of loss are generally on smaller average balances spread over many borrowers. Once charged off, there is usually less opportunity for recovery of these smaller consumer loans. Credit risk is primarily controlled by reviewing the creditworthiness of the borrowers, monitoring payment histories, and taking appropriate collateral and guarantee positions. The student loan portfolio is in run-off and no new student loans are being originated.

Nonaccrual Loans, Potential Problem Loans, and Other Real Estate Owned

Management is committed to a proactive nonaccrual and potential problem loan identification philosophy. This philosophy is implemented through the ongoing monitoring and review of all pools of risk in the loan portfolio to ensure that problem loans are identified quickly and the risk of loss is minimized. Table 9 provides detailed information regarding nonperforming assets, which include nonaccrual loans and other real estate owned.

TABLE 9: Nonperforming Assets

	September 30, 2016	June 30, 2016	March 31, 2016	December 31, 2015	September 30, 2015
			($ in Thousands)		
Nonperforming assets:					
Commercial and industrial	$ 205,902	$ 193,439	$ 197,115	$ 93,575	$ 60,184
Commercial real estate — owner occupied	6,995	9,635	9,443	8,049	13,368
Commercial and business lending	212,897	203,074	206,558	101,624	73,552
Commercial real estate — investor	8,028	11,528	12,330	8,643	6,921
Real estate construction	864	957	840	940	997
Commercial real estate lending	8,892	12,485	13,170	9,583	7,918
Total commercial	221,789	215,559	219,728	111,207	81,470
Residential mortgage	53,475	52,300	52,212	51,482	51,957
Home equity revolving lines of credit	9,462	8,797	8,822	9,917	8,060
Home equity loans junior liens	4,885	5,566	5,250	5,327	5,581
Home equity	14,347	14,363	14,072	15,244	13,641
Other consumer	300	380	383	325	386
Total consumer	68,122	67,043	66,667	67,051	65,984
Total nonaccrual loans	289,911	282,602	286,395	178,258	147,454
Commercial real estate owned	9,758	7,473	9,695	7,942	9,242
Residential real estate owned	3,006	4,391	4,689	4,768	3,788
Bank properties real estate owned	1,735	1,805	1,672	1,859	710
Other real estate owned (“OREO”)	14,499	13,669	16,056	14,569	13,740
Total nonperforming assets (“NPAs”)	$ 304,410	$ 296,271	$ 302,451	$ 192,827	$ 161,194
Commercial real estate-investor & Real estate construction nonaccrual loans detail:					
Multi-family	$ 448	$ 115	$ 415	$ 2	$ 2
Non-owner occupied	7,580	11,413	11,915	8,641	6,919
Commercial real estate — investor	$ 8,028	$ 11,528	$ 12,330	$ 8,643	$ 6,921
1-4 family construction	$ 94	$ 153	$ 274	$ 314	$ 337
All other construction	770	804	566	626	660
Real estate construction	$ 864	$ 957	$ 840	$ 940	$ 997
Accruing loans past due 90 days or more:					
Commercial	$ 254	$ 248	$ 217	$ 249	$ 178
Consumer	1,257	1,246	1,412	1,399	1,306
Total accruing loans past due 90 days or more	$ 1,511	$ 1,494	$ 1,629	$ 1,648	$ 1,484
Restructured loans (accruing):					
Commercial	$ 53,410	$ 57,251	$ 57,980	$ 59,595	$ 55,006
Consumer	26,660	26,175	27,617	27,768	27,803
Total restructured loans (accruing)	$ 80,070	$ 83,426	$ 85,597	$ 87,363	$ 82,809
Nonaccrual restructured loans (included in nonaccrual loans)	$ 31,758	$ 34,841	$ 35,232	$ 37,684	$ 36,583
Ratios:					
Nonaccrual loans to total loans	1.46%	1.43%	1.49%	0.95%	0.80%
NPAs to total loans plus OREO	1.53%	1.49%	1.57%	1.03%	0.87%
NPAs to total assets	1.04%	1.02%	1.07%	0.70%	0.59%
Allowance for loan losses to nonaccrual loans	93%	95%	97%	154%	178%

TABLE 9: Nonperforming Assets (continued)

	September 30, 2016	June 30, 2016	March 31, 2016	December 31, 2015	September 30, 2015
			($ in Thousands)		
Accruing loans 30-89 days past due:					
Commercial and industrial	$ 950	$ 2,124	$ 2,901	$ 1,011	$ 3,296
Commercial real estate — owner occupied	869	193	520	7,142	2,018
Commercial and business lending	1,819	2,317	3,421	8,153	5,314
Commercial real estate — investor	630	2,715	1,072	291	1,218
Real estate construction	402	524	415	296	373
Commercial real estate lending	1,032	3,239	1,487	587	1,591
Total commercial	2,851	5,556	4,908	8,740	6,905
Residential mortgage	6,697	7,382	3,594	4,930	4,811
Home equity revolving lines of credit	4,137	6,075	3,582	5,559	6,142
Home equity loans junior liens	1,336	1,655	2,222	2,360	2,423
Home equity	5,473	7,730	5,804	7,919	8,565
Other consumer	2,046	1,895	1,682	1,870	1,723
Total consumer	14,216	17,007	11,080	14,719	15,099
Total accruing loans 30-89 days past due	$ 17,067	$ 22,563	$ 15,988	$ 23,459	$ 22,004
Commercial real estate-investor & Real estate construction accruing loans 30-89 days past due detail:					
Farmland	$ —	$ —	$ —	$ —	$ 66
Multi-family	613	668	324	108	114
Non-owner occupied	17	2,047	748	183	1,038
Commercial real estate — investor	$ 630	$ 2,715	$ 1,072	$ 291	$ 1,218
1-4 family construction	$ —	$ 157	$ —	$ 27	$ 28
All other construction	402	367	415	269	345
Real estate construction	$ 402	$ 524	$ 415	$ 296	$ 373
Potential problem loans:					
Commercial and industrial	$ 351,290	$ 379,818	$ 328,464	$ 233,130	$ 192,174
Commercial real estate — owner occupied	47,387	45,671	41,107	35,706	41,466
Commercial and business lending	398,677	425,489	369,571	268,836	233,640
Commercial real estate — investor	36,765	25,081	25,385	25,944	23,633
Real estate construction	1,929	2,117	2,422	3,919	2,354
Commercial real estate lending	38,694	27,198	27,807	29,863	25,987
Total commercial	437,371	452,687	397,378	298,699	259,627
Residential mortgage	3,226	3,953	3,488	2,796	3,966
Home equity revolving lines of credit	46	62	48	48	141
Home equity loans junior liens	32	32	161	174	86
Home equity	78	94	209	222	227
Total consumer	3,304	4,047	3,697	3,018	4,193
Total potential problem loans	$ 440,675	$ 456,734	$ 401,075	$ 301,717	$ 263,820

Nonaccrual Loans: Nonaccrual loans are considered to be one indicator of potential future loan losses. See Note 7, "Loans," of the notes to consolidated financial statements for additional nonaccrual loan disclosures. The ratio of nonaccrual loans to total loans at September 30, 2016 was 1.46%, as compared to 0.80% at September 30, 2015 and 0.95% at December 31, 2015. See also sections "Credit Risk" and "Allowance for Credit Losses."

Accruing Loans Past Due 90 Days or More: Loans past due 90 days or more but still accruing interest are classified as such where the underlying loans are both well secured (the collateral value is sufficient to cover principal and accrued interest) and are in the process of collection. Accruing loans 90 days or more past due at September 30, 2016 were relatively unchanged from both September 30, 2015 and December 31, 2015.

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

Potential Problem Loans: The level of potential problem loans is another predominant factor in determining the relative level of risk in the loan portfolio and in determining the appropriate level of the allowance for loan losses. Potential problem loans are generally defined by management to include loans rated as substandard by management but that are not considered impaired (i.e., nonaccrual loans and accruing troubled debt restructurings); however, there are circumstances present to create doubt as to the ability of the borrower to comply with present repayment terms. The decision of management to include performing loans in potential problem loans does not necessarily mean that the Corporation expects losses to occur, but that management recognizes a higher degree of risk associated with these loans. The increase in potential problem loans is primarily due to the risk migration on certain general commercial and oil and gas credits.

Other Real Estate Owned: Other real estate owned was $14 million at September 30, 2016 and September 30, 2015, compared to $15 million at December 31, 2015. Management actively seeks to ensure properties held are monitored to minimize the Corporation's risk of loss.

Allowance for Credit Losses

Credit risks within the loan portfolio are inherently different for each loan type. Credit risk is controlled and monitored through the use of lending standards, a thorough review of potential borrowers, and ongoing review of loan payment performance. Active asset quality administration, including early problem loan identification and timely resolution of problems, aids in the management of credit risk and minimization of loan losses. Credit risk management for each loan type is discussed in the section entitled "Credit Risk."

The allowance for credit losses is comprised of the allowance for loan losses and the allowance for unfunded commitments. The level of the allowance for loan losses represents management's estimate of an amount appropriate to provide for probable credit losses in the loan portfolio at the balance sheet date. The allowance for unfunded commitments is maintained at a level believed by management to be sufficient to absorb estimated probable losses related to unfunded credit facilities (including unfunded loan commitments and letters of credit) and is included in accrued expenses and other liabilities on the consolidated balance sheets.

To assess the appropriateness of the allowance for loan losses, an allocation methodology is applied by the Corporation which focuses on evaluation of many factors, including but not limited to: evaluation of facts and issues related to specific loans, management's ongoing review and grading of the loan portfolio, consideration of historical loan loss and delinquency experience on each portfolio category, trends in past due and nonaccrual loans, the level of potential problem loans, the risk characteristics of the various classifications of loans, changes in the size and character of the loan portfolio, concentrations of loans to specific borrowers or industries, existing economic conditions, the fair value of underlying collateral, and other qualitative and quantitative factors which could affect potential credit losses. Assessing these factors involves significant judgment. Because each of the criteria used is subject to change, the allowance for loan losses is not necessarily indicative of the trend of future loan losses in any particular category. Therefore, management considers the allowance for loan losses a critical accounting policy — see section "Critical Accounting Policies," in the Corporation's 2015 Annual Report on Form 10-K for additional information on the allowance for loan losses. See section, "Nonaccrual Loans, Potential Problem Loans, and Other Real Estate Owned," for a detailed discussion on asset quality. See also Note 7, "Loans," of the notes to consolidated financial statements for additional allowance for loan losses disclosures. Table 5 provides information on loan growth and period end loan composition, Table 9 provides additional information regarding nonperforming assets, and Tables 10 and 11 provide additional information regarding activity in the allowance for loan losses.

The methodology used for the allocation of the allowance for loan losses at September 30, 2016 and December 31, 2015 was generally comparable, whereby the Corporation segregated its loss factors (used for both criticized and non-criticized loans) into a component primarily based on historical loss rates and a component primarily based on other qualitative factors that are probable to affect loan collectability. The Corporation's allowance for loan losses methodology considers an estimate of the historical loss emergence period (which is the period of time between the event that triggers a loss and the confirmation and / or charge off of that loss), probability of default, and loss given default for each loan portfolio segment. Management allocates the allowance for loan losses by pools of risk within each loan portfolio. The allocation methodology consists of the following components: First, a valuation allowance estimate is established for specifically identified commercial and consumer loans determined by the Corporation to be impaired, using discounted cash flows, estimated fair value of underlying collateral, and / or other data available. Second, management allocates the allowance for loan losses with loss factors, for criticized loan pools by loan type as well as for non-criticized loan pools by loan type, primarily based on historical loss rates after considering loan type, historical loss and delinquency experience, and industry statistics. Loans that have been criticized are considered to have a higher risk of default than non-criticized loans, as circumstances were present to support the lower loan grade, warranting higher loss factors. The loss factors applied in the methodology are periodically re-evaluated and adjusted to reflect changes in historical loss levels or other risks.

During the second quarter of 2016, in conjunction with the annual stress testing processes and continual review of the allowance for loan losses methodology, the Corporation further segmented its commercial and industrial loan portfolio into more refined risk categories. Specifically, the Corporation isolated certain mortgage warehouse lines structured as repurchase facilities as we own the underlying mortgage loan; thus, the inherent risk is lower in these transactions. As a result, the loss factors for these mortgage warehouse lines were updated to align more closely with those of similar portfolio mortgage loans, resulting in a $6 million reduction to the allowance for credit losses during the second quarter of 2016. Lastly, management allocates allowance for loan losses to absorb unrecognized losses that may not be provided for by the other components due to other factors evaluated by management, such as limitations within the credit risk grading process, known current economic or business conditions that may not yet show in trends, industry or other concentrations with current issues that impose higher inherent risks than are reflected in the loss factors, and other relevant considerations. The total allowance is available to absorb losses from any segment of the loan portfolio.

TABLE 10: Allowance for Credit Losses

	YTD						
	September 30, 2016	September 30, 2015	September 30, 2016	June 30, 2016	March 31, 2016	December 31, 2015	September 30, 2015
				($ in Thousands)			
Allowance for Loan Losses:							
Balance at beginning of period	$ 274,264	$ 266,302	$ 267,780	$ 277,370	$ 274,264	$ 262,536	$ 261,538
Provision for loan losses	51,000	18,500	20,000	11,000	20,000	19,500	9,000
Charge offs	(74,830)	(39,539)	(28,964)	(24,621)	(21,245)	(12,741)	(11,732)
Recoveries	19,106	17,273	10,724	4,031	4,351	4,969	3,730
Net charge offs	(55,724)	(22,266)	(18,240)	(20,590)	(16,894)	(7,772)	(8,002)
Balance at end of period	$ 269,540	$ 262,536	$ 269,540	$ 267,780	$ 277,370	$ 274,264	$ 262,536
Allowance for Unfunded Commitments:							
Balance at beginning of period	$ 24,400	$ 24,900	$ 27,400	$ 24,400	$ 24,400	$ 23,900	$ 24,900
Provision for unfunded commitments	4,000	(1,000)	1,000	3,000	—	500	(1,000)
Balance at end of period	$ 28,400	$ 23,900	$ 28,400	$ 27,400	$ 24,400	$ 24,400	$ 23,900
Allowance for credit losses(A)	$ 297,940	$ 286,436	$ 297,940	$ 295,180	$ 301,770	$ 298,664	$ 286,436
Provision for credit losses(B)	$ 55,000	$ 17,500	$ 21,000	$ 14,000	$ 20,000	$ 20,000	$ 8,000
Net loan (charge offs) recoveries:							
Commercial and industrial	$ (49,907)	$ (13,280)	$ (16,407)	$ (18,564)	$ (14,936)	$ (4,586)	$ (4,709)
Commercial real estate — owner occupied	(217)	(1,433)	(154)	(20)	(43)	(291)	504
Commercial and business lending	(50,124)	(14,713)	(16,561)	(18,584)	(14,979)	(4,877)	(4,205)
Commercial real estate — investor	115	177	(564)	(560)	1,239	(665)	(496)
Real estate construction	(269)	1,378	(22)	(219)	(28)	140	(38)
Commercial real estate lending	(154)	1,555	(586)	(779)	1,211	(525)	(534)
Total commercial	(50,278)	(13,158)	(17,147)	(19,363)	(13,768)	(5,402)	(4,739)
Residential mortgage	(2,529)	(3,845)	(540)	(757)	(1,232)	(714)	(1,562)
Home equity revolving lines of credit	(591)	(1,999)	36	275	(902)	(294)	(533)
Home equity loans junior liens	(113)	(899)	89	42	(244)	(623)	(358)
Home equity	(704)	(2,898)	125	317	(1,146)	(917)	(891)
Other consumer	(2,213)	(2,365)	(678)	(787)	(748)	(739)	(810)
Total consumer	(5,446)	(9,108)	(1,093)	(1,227)	(3,126)	(2,370)	(3,263)
Total net charge offs	$ (55,724)	$ (22,266)	$ (18,240)	$ (20,590)	$ (16,894)	$ (7,772)	$ (8,002)
Commercial real estate-investor and Real estate construction net charge off detail:							
Multi-family	$ (2)	$ (39)	$ —	$ —	$ (2)	$ —	$ (35)
Non-owner occupied	117	216	(564)	(560)	1,241	(665)	(461)
Commercial real estate — investor	$ 115	$ 177	$ (564)	$ (560)	$ 1,239	$ (665)	$ (496)
1-4 family construction	$ (33)	$ 515	$ —	$ 16	$ (49)	$ 235	$ 31
All other construction	(236)	863	(22)	(235)	21	(95)	(69)
Real estate construction	$ (269)	$ 1,378	$ (22)	$ (219)	$ (28)	$ 140	$ (38)
Ratios:							
Allowance for loan losses to total loans	1.36 %	1.42%	1.36%	1.35%	1.44%	1.47%	1.42%
Allowance for loan losses to net charge offs (Annualized)	3.6x	8.8x	3.7x	3.2x	4.1x	8.9x	8.3x

(A) Includes the allowance for loan losses and the allowance for unfunded commitments.
(B) Includes the provision for loan losses and the provision for unfunded commitments.

TABLE 11: Annualized net (charge offs) recoveries (A)

	YTD						
(in basis points)	**September 30, 2016**	**September 30, 2015**	**September 30, 2016**	**June 30, 2016**	**March 31, 2016**	**December 31, 2015**	**September 30, 2015**
Net loan (charge offs) recoveries:							
Commercial and industrial	(103)	(29)	(98)	(114)	(97)	(31)	(31)
Commercial real estate — owner occupied	(3)	(19)	(7)	(1)	(2)	(12)	21
Commercial and business lending	(91)	(28)	(87)	(100)	(85)	(28)	(24)
Commercial real estate — investor	N\M	1	(6)	(7)	15	(8)	(6)
Real estate construction	(3)	17	(1)	(7)	(1)	5	(1)
Commercial real estate lending	N\M	5	(5)	(7)	11	(5)	(5)
Total commercial	(56)	(16)	(55)	(64)	(48)	(19)	(17)
Residential mortgage	(6)	(9)	(3)	(5)	(8)	(5)	(11)
Home equity revolving lines of credit	(9)	(30)	2	13	(41)	(13)	(24)
Home equity loans junior liens	(14)	(81)	34	15	(83)	(195)	(104)
Home equity	(10)	(38)	5	13	(46)	(36)	(35)
Other consumer	(72)	(73)	(67)	(78)	(72)	(69)	(75)
Total consumer	(10)	(18)	(6)	(7)	(17)	(13)	(18)
Total net charge offs	(38)	(16)	(36)	(42)	(36)	(17)	(17)
Commercial real estate-investor and Real estate construction net charge off detail:							
Multi-family	N\M	(1)	N\M	N\M	N\M	N\M	(2)
Non-owner occupied	1	1	(9)	(9)	21	(11)	(8)
Commercial real estate — investor	N\M	1	(6)	(7)	15	(8)	(6)
1-4 family construction	(1)	22	N\M	2	(6)	29	4
All other construction	(4)	16	(1)	(11)	1	(5)	(3)
Real estate construction	(3)	17	(1)	(7)	(1)	5	(1)

(A) Annualized ratio of net charge offs to average loans by loan type.

N/M = Not Meaningful

At September 30, 2016, the allowance for credit losses was $298 million, compared to $286 million at September 30, 2015 and $299 million at December 31, 2015. At September 30, 2016, the allowance for loan losses to total loans was 1.36% and covered 93% of nonaccrual loans, compared to 1.42% and 178%, respectively, at September 30, 2015 and 1.47% and 154%, respectively, at December 31, 2015. Management believes the level of allowance for loan losses to be appropriate at September 30, 2016 and 2015 and December 31, 2015.

Key contributors to the increase in the allowance for credit losses and the related provision for credit losses during the first nine months of 2016 were:

- Net charge offs of $56 million for the first nine months of 2016 increased $33 million from the comparable period in 2015, primarily due to the charge off of three large oil and gas related credits. See Tables 10 and 11 for additional information regarding the activity in the allowance for loan losses.

- Total loans increased $1.1 billion (6%) during the first nine months of 2016, including a $505 million (7%) increase in commercial and business lending, a $448 million (10%) increase in commercial real estate lending, and a $176 million (2%) increase in total consumer. Compared to September 30, 2015, total loans increased $1.3 billion (7%), including a $537 million (12%) increase in commercial real estate lending, a $519 million (7%) increase in commercial and business lending and a $263 million (4%) increase in total consumer. See section "Loans" for additional information on the changes in the loan portfolio and see section "Credit Risk" for discussion about credit risk management for each loan type.

- Total nonaccrual loans increased $112 million from year-end 2015 primarily due to the risk migration of oil and gas related credits. Nonaccrual loans increased $142 million from September 30, 2015, also principally related to the risk migration within the oil and gas loan portfolio. See also Note 7, "Loans," of the notes to consolidated financial statements and section "Nonaccrual Loans, Potential Problem Loans, and Other Real Estate Owned" for additional disclosures on the changes in asset quality.

- Potential problem loans increased $139 million from December 31, 2015 and increased $177 million from September 30, 2015, primarily due to the risk migration on general commercial and oil and gas related credits. See Table 9 for additional information on the changes in potential problem loans.

- The allowance for loan losses attributable to oil and gas related credits (included within the commercial and industrial allowance for loan losses) was $38 million at September 30, 2016, compared to $42 million at December 31, 2015 and $29 million at September 30, 2015. See also Oil and gas lending with the "Credit Risk" section for additional information.

- The allowance for unfunded commitments of $28 million increased $4 million during the first nine months of 2016, driven by risk rating migration and new volumes.

Deposits and Customer Funding

TABLE 12: Period End Deposit and Customer Funding Composition

($ in Thousands)	September 30, 2016		June 30, 2016		March 31, 2016		December 31, 2015		September 30, 2015	
	Amount	% of Total	Amount	% of Total	Amount	% of Total	Amount	% of Total	Amount	% of Total
Noninterest-bearing demand	$ 5,337,677	24%	$ 5,039,336	25%	$ 5,272,685	26%	$ 5,562,466	27%	$ 4,657,261	23%
Savings	1,441,187	7%	1,451,801	7%	1,426,951	7%	1,334,420	6%	1,346,407	6%
Interest-bearing demand	4,548,390	21%	3,789,138	19%	3,698,941	18%	3,445,000	17%	3,416,429	17%
Money market	8,894,357	41%	8,448,543	42%	8,718,841	42%	9,102,977	43%	9,516,503	46%
Brokered CDs	44,373	—%	46,268	—%	41,440	—%	42,443	—%	42,689	—%
Other time	1,481,728	7%	1,517,764	7%	1,526,602	7%	1,520,359	7%	1,579,106	8%
Total deposits	$21,747,712	100%	$20,292,850	100%	$20,685,460	100%	$21,007,665	100%	$20,558,395	100%
Customer funding	477,607		464,880		508,262		383,568		524,630	
Total deposits and customer funding	$22,225,319		$20,757,730		$21,193,722		$21,391,233		$21,083,025	
Network transaction deposits (1)	$ 3,730,513		$ 3,141,214		$ 3,399,054		$ 3,174,911		$ 3,207,867	
Total deposits and customer funding, excluding Brokered CDs and network transaction deposits	$18,450,433		$17,570,248		$17,753,228		$18,173,879		$17,832,469	
Time deposits of more than $250,000	$ 149,214		$ 151,133		$ 144,294		$ 127,120		$ 169,146	

(1) Included above in interest-bearing demand and money market.

- Deposits are the Corporation's largest source of funds.

- Total deposits increased $740 million (4%) from December 31, 2015, primarily due to an increase in interest-bearing demand deposits. Total deposits increased $1.2 billion (6%) from September 30, 2015, primarily due to an increase in noninterest-bearing and interest-bearing demand deposits.

- Non-maturity deposits, which excludes brokered CDs and other time deposits, accounted for 93% of our total deposits at September 30, 2016.

- Included in the above amounts were $3.7 billion of network deposits, primarily sourced from other financial institutions and intermediaries. These represented 17% of total deposits at September 30, 2016.

Liquidity

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

The Corporation performs dynamic scenario analysis in accordance with industry best practices. Measures have been established to ensure the Corporation has sufficient high quality short-term liquidity to meet cash flow requirements under stressed scenarios. In addition, the Corporation also reviews static measures such as deposit funding as a percent of total assets and liquid asset levels. Strong capital ratios, credit quality, and core earnings are also essential to maintaining cost effective access to wholesale funding markets. At September 30, 2016, the Corporation was in compliance with its internal liquidity objectives and has sufficient asset-based liquidity to meet its obligations under a stressed scenario.

The Corporation maintains diverse and readily available liquidity sources:

- Investment securities are an important tool to the Corporation's liquidity objective, and can be pledged or sold to enhance liquidity, if necessary. See also Note 6, "Investment Securities," of the notes to consolidated financial statements for additional information on the Corporation's investment securities portfolio, including investment securities pledged.
- The Bank pledges eligible loans to both the Federal Reserve Bank and the FHLB as collateral to establish lines of credit and borrow from these entities. Based on the amount of collateral pledged, the FHLB established a collateral value from which the Bank may draw advances against the collateral. The collateral is also used to enable the FHLB to issue letters of credit in favor of public fund depositors of the Bank. As of September 30, 2016, the Bank had $2.8 billion available for future advances. The Federal Reserve Bank also establishes a collateral value of assets to support borrowings from the discount window. As of September 30, 2016, the Bank had $1.7 billion available for discount window borrowings.
- The Parent Company has a $200 million commercial paper program, of which, $91 million was outstanding as of September 30, 2016.
- Dividends and service fees from subsidiaries, as well as the proceeds from issuance of capital are also funding sources for the Parent Company.
- The Parent Company has filed a shelf registration statement with the SEC under which the Parent Company may, from time to time, offer shares of the Corporation's common stock in connection with acquisitions of businesses, assets or securities of other companies.
- The Parent Company also has filed a universal shelf registration statement with the SEC, under which the Parent Company may offer the following securities, either separately or in units: debt securities, preferred stock, depositary shares, common stock, and warrants.
- The Bank may also issue institutional certificates of deposit, network transaction deposits, and brokered certificates of deposit.

Credit ratings relate to the Corporation's ability to issue debt securities and the cost to borrow money, and should not be viewed as an indication of future stock performance or a recommendation to buy, sell, or hold securities. Adverse changes in these factors could result in a negative change in credit ratings and impact not only the ability to raise funds in the capital markets but also the cost of these funds. The credit ratings of the Parent Company and the Bank at September 30, 2016 are displayed below.

TABLE 13: Credit Ratings

	Moody's	S&P*
Bank short-term deposits	P-1	-
Bank long-term	A1	BBB+
Corporation short-term	P-2	-
Corporation long-term	Baa1	BBB
Outlook	Negative	Stable

* - Standard and Poor's

For the nine months ended September 30, 2016, net cash provided by operating and financing activities was $408 million and $1.2 billion, respectively, while investing activities used net cash of $1.5 billion, for a net increase in cash and cash equivalents of $137 million since year-end 2015. During the first nine months of 2016, assets increased to $29.2 billion (up $1.4 billion or 5%) compared to year-end 2015, primarily due to an increase in loans. On the funding side, deposits and short-term funding increased $740 million and $406 million, respectively. The Corporation also repurchased $20 million of common stock and paid cash dividends to stockholders of $56 million during the first nine months of 2016.

For the nine months ended September 30, 2015, net cash provided by operating and financing activities was $224 million and $427 million, respectively, while investing activities used net cash of $1.3 billion, for a net decrease in cash and cash equivalents of $622 million since year-end 2014. During the first nine months of 2015, loans and investment securities increased $931 million and $207 million, respectively. On the funding side, deposits increased $1.8 billion, while long-term funding decreased $1.2 billion. The Corporation also repurchased $93 million of common stock and paid cash dividends to stockholders of $51 million during the first nine months of 2015.

Quantitative and Qualitative Disclosures about Market Risk

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

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

Interest Rate Risk

The primary goal of interest rate risk management is to control exposure to interest rate risk within policy limits approved by the Board of Directors. These limits and guidelines reflect our risk appetite for interest rate risk over both short-term and long-term horizons. No limit breaches occurred during the first nine months of 2016.

The major sources of our non-trading interest rate risk are timing differences in the maturity and re-pricing characteristics of assets and liabilities, changes in the shape of the yield curve, and the potential exercise of explicit or embedded options. We measure these risks and their impact by identifying and quantifying exposures through the use of sophisticated simulation and valuation models which are employed by management to understand net interest income ("NII") at risk, interest rate sensitive earnings at risk ("EAR"), and market value of equity ("MVE") at risk. These measures show that our interest rate risk profile was slightly asset sensitive at September 30, 2016.

For further discussion of the Corporation's interest rate risk and corresponding key assumptions, see the Interest Rate Risk section of Management's Discussion and Analysis of Financial Condition and Results of Operations included in the Corporation's 2015 Annual Report on Form 10-K.

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

TABLE 14: Estimated % Change in Net Interest Income Over 12 Months

	Estimated % Change in Rate Sensitive Earnings at Risk Over 12 Months			
	Dynamic Forecast September 30, 2016	Static Forecast September 30, 2016	Dynamic Forecast December 31, 2015	Static Forecast December 31, 2015
Instantaneous Rate Change				
100 bp increase in interest rates	1.9%	2.0%	1.6%	2.1%
200 bp increase in interest rates	3.6%	3.8%	3.0%	4.4%

At September 30, 2016, the MVE profile indicates a decline in net balance sheet value due to instantaneous upward changes in rates.

TABLE 15: Market Value of Equity Sensitivity

	September 30, 2016	December 31, 2015
Instantaneous Rate Change		
100 bp increase in interest rates	(1.9)%	(1.7)%
200 bp increase in interest rates	(4.6)%	(3.7)%

While an instantaneous and severe shift in interest rates was used in this analysis to provide an estimate of exposure under an extremely adverse scenario, the Corporation believes that a gradual shift in interest rates would have a much more modest impact. Since MVE measures the discounted present value of cash flows over the estimated lives of instruments, the change in MVE does not directly correlate to the degree that earnings would be impacted over a shorter time horizon (i.e., the current year). Further, MVE does not take into account factors such as future balance sheet growth, changes in product mix, changes in yield curve relationships, and changes in product spreads that could mitigate the adverse impact of changes in interest rates.

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

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

TABLE 16: Contractual Obligations and Other Commitments

September 30, 2016	One Year or Less	One to Three Years	Three to Five Years	Over Five Years	Total
			($ in Thousands)		
Time deposits	$ 821,101	$ 458,912	$ 241,128	$ 4,960	$ 1,526,101
Short-term funding	1,240,093	—	—	—	1,240,093
Long-term funding	10	1,865,021	648,990	247,614	2,761,635
Operating leases	10,417	18,635	15,931	17,968	62,951
Commitments to extend credit	4,017,722	2,881,736	1,321,510	149,462	8,370,430
Total	$ 6,089,343	$ 5,224,304	$ 2,227,559	$ 420,004	$ 13,961,210

The Corporation utilizes a variety of financial instruments in the normal course of business to meet the financial needs of its customers and to manage its own exposure to fluctuations in interest rates. These financial instruments include lending-related commitments and derivative instruments. A discussion of the Corporation's derivative instruments at September 30, 2016, is included in Note 10, "Derivative and Hedging Activities," of the notes to consolidated financial statements. A discussion of the Corporation's lending-related commitments is included in Note 12, "Commitments, Off-Balance Sheet Arrangements, and Legal Proceedings," of the notes to consolidated financial statements. See also Note 9, "Short and Long-Term Funding," of the notes to consolidated financial statements for additional information on the Corporation's short-term and long-term funding.

Table 16 summarizes significant contractual obligations and other commitments at September 30, 2016, at those amounts contractually due to the recipient, including any premiums or discounts, hedge basis adjustments, or other similar carrying value adjustments.

Capital

TABLE 17: Capital Ratios

	3Q16	2Q16	1Q16	4Q15	3Q15
			($ in Thousands)		
Risk-based Capital (1)					
Common equity Tier 1	$ 1,983,770	$ 1,940,704	$ 1,902,593	$ 1,897,944	$ 1,865,289
Tier 1 capital	2,142,779	2,059,661	2,021,125	2,016,861	1,983,612
Total capital	2,656,648	2,573,941	2,526,653	2,515,861	2,481,661
Total risk-weighted assets	21,264,972	21,168,161	20,453,744	19,929,963	19,866,379
Common equity Tier 1 capital ratio	9.33%	9.17%	9.30%	9.52%	9.39%
Tier 1 capital ratio	10.08%	9.73%	9.88%	10.12%	9.98%
Total capital ratio	12.49%	12.16%	12.35%	12.62%	12.49%
Tier 1 leverage ratio	7.64%	7.43%	7.55%	7.60%	7.53%
Selected Equity and Performance Ratios					
Stockholders' equity / assets	10.62%	10.43%	10.58%	10.60%	10.76%
Return on average assets	0.74%	0.69%	0.62%	0.62%	0.72%

(1) The Federal Reserve establishes regulatory capital adequacy requirements, including well-capitalized standards for the Corporation. The regulatory capital requirements effective for the Corporation follow Basel III, subject to certain transition provisions. These regulatory capital measurements are used by management, regulators, investors, and analysts to assess, monitor and compare the quality and composition of our capital with the capital of other financial services companies.

TABLE 18: Non-GAAP Measures

	YTD Sep 2016	YTD Sep 2015	3Q16	2Q16	1Q16	4Q15	3Q15
				($ in Thousands)			
Selected Equity and Performance Ratios (1) (2)							
Tangible common equity / tangible assets			6.92%	6.85%	6.89%	6.85%	6.97%
Return on average equity	6.47%	6.76%	7.03%	6.19%	5.76%	5.77%	6.72%
Return on average tangible common equity	9.83%	10.38%	10.68%	10.04%	8.72%	8.78%	10.35%
Return on average Common equity Tier 1	9.66%	10.32%	10.52%	9.86%	8.55%	8.60%	10.20%
Tangible Common Equity Reconciliation (1)							
Common equity			$ 2,937,186	$ 2,909,946	$ 2,862,151	$ 2,815,867	$ 2,832,418
Goodwill and other intangible assets, net			(987,853)	(988,378)	(988,917)	(985,302)	(985,822)
Tangible common equity			$ 1,949,333	$ 1,921,568	$ 1,873,234	$ 1,830,565	$ 1,846,596
Tangible Assets Reconciliation (1)							
Total assets			$29,152,764	$29,038,699	$28,178,867	$27,711,835	$27,463,766
Goodwill and other intangible assets, net			(987,853)	(988,378)	(988,917)	(985,302)	(985,822)
Tangible assets			$28,164,911	$28,050,321	$27,189,950	$26,726,533	$26,477,944
Average Tangible Common Equity and Average Common Equity Tier 1 Reconciliation (1) (2)							
Common equity	$ 2,876,407	$ 2,792,371	$ 2,910,691	$ 2,868,772	$ 2,849,382	$ 2,819,267	$ 2,797,630
Goodwill and other intangible assets, net	(988,664)	(981,392)	(988,171)	(988,699)	(989,127)	(985,605)	(986,360)
Tangible common equity	1,887,743	1,810,979	1,922,520	1,880,073	1,860,255	1,833,662	1,811,270
Less: Accumulated other comprehensive income / loss	678	(13,550)	(2,616)	1,365	3,320	4,266	(6,601)
Less: Deferred tax assets/deferred tax liabilities, net	32,474	23,183	32,712	31,803	32,906	34,199	32,767
Average common equity Tier 1	$ 1,920,895	$ 1,820,612	$ 1,952,616	$ 1,913,241	$ 1,896,481	$ 1,872,127	$ 1,837,436
Efficiency Ratio Reconciliation (3)							
Federal Reserve efficiency ratio	67.51 %	69.78 %	64.40 %	69.34 %	69.01 %	70.49 %	68.85 %
Fully tax-equivalent adjustment	(1.32)%	(1.38)%	(1.21)%	(1.36)%	(1.37)%	(1.52)%	(1.38)%
Other intangible amortization	(0.20)%	(0.34)%	(0.19)%	(0.21)%	(0.20)%	(0.21)%	(0.36)%
Fully tax-equivalent efficiency ratio	65.99 %	68.06 %	63.00 %	67.77 %	67.44 %	68.76 %	67.11 %

(1) The ratio tangible common equity to tangible assets excludes goodwill and other intangible assets, net, which is a non-GAAP financial measure. This financial measure has been included as it is considered to be a critical metric with which to analyze and evaluate financial condition and capital strength.

(2) The Federal Reserve establishes regulatory capital requirements, including well-capitalized standards for the Corporation. The regulatory capital requirements effective for the Corporation follow Basel III, subject to certain transition provisions. These regulatory capital measurements are used by management, regulators, investors, and analysts to assess, monitor and compare the quality and composition of our capital with the capital of other financial services companies.

(3) The efficiency ratio as defined by the Federal Reserve guidance is noninterest expense (which includes the provision for unfunded commitments) divided by the sum of net interest income plus noninterest income, excluding investment securities gains / losses, net. The fully tax-equivalent efficiency ratio is noninterest expense (which includes the provision for unfunded commitments), excluding other intangible amortization, divided by the sum of fully tax-equivalent net interest income plus noninterest income, excluding investment securities gains / losses, net. Management believes the fully tax-equivalent efficiency ratio, which adjusts net interest income for the tax-favored status of certain loans and investment securities, to be the preferred industry measurement as it enhances the comparability of net interest income arising from taxable and tax-exempt sources.

Management actively reviews capital strategies for the Corporation and each of its subsidiaries in light of perceived business risks, future growth opportunities, industry standards, and compliance with regulatory requirements. The assessment of overall capital adequacy depends on a variety of factors, including asset quality, liquidity, stability of earnings, changing competitive forces, economic condition in markets served, and strength of management. At September 30, 2016, the capital ratios of the Corporation and its banking subsidiary were in excess of regulatory minimum requirements. The Corporation's capital ratios are summarized in Table 17.

During the first nine months of 2016, the Corporation repurchased over 1 million shares of common stock for $20 million or an average cost of $17.10 per share. On September 15, 2016, the Corporation completed the issuance of 4 million depositary shares each representing a 1/40th interest in a share of 5.375% Non-Cumulative Perpetual Preferred Stock, Series D, for net proceeds of $97 million. In addition, on September 15, 2016, the Corporation redeemed all remaining depositary shares (2.4 million shares) each representing a 1/40th interest in a share of the 8.00% Non-Cumulative Perpetual Preferred Series B Stock for $58 million. See Part II, Item 2, "Unregistered Sales of Equity Securities and Use of Proceeds," for additional information on the shares repurchased during the third quarter of 2016. The repurchase of shares will be based on market and investment opportunities, capital levels, growth prospects, and regulatory constraints. Such repurchases may occur from time to time in open market purchases, block transactions, private transactions, accelerated share repurchase programs, or similar facilities.

Sequential Quarter Results

The Corporation reported net income of $54 million for the third quarter of 2016, compared to net income of $49 million for the second quarter of 2016. Net income available to common equity was $52 million for the third quarter of 2016 or net income of $0.34 for both basic and diluted earnings per common share. Comparatively, net income available to common equity for the second quarter of 2016, was $47 million, or net income of $0.31 for both basic and diluted earnings per common share (see Table 1).

Fully tax-equivalent net interest income for the third quarter of 2016 was $184 million, $2 million higher than the second quarter of 2016. The Federal funds target rate remained constant at 0.50%. The net interest margin was 2.77% for the third quarter of 2016, down 4 bp from 2.81% for the second quarter of 2016. Average earning assets increased $466 million to $26.4 billion in the third quarter of 2016, with average loans up $411 million. On the funding side, average interest-bearing deposits were up $923 million (primarily due to an increase in interest-bearing demand deposits and money market deposits) (see Table 2) while average short and long-term funding was down $700 million (primarily due to the reduction in short-term FHLB advances).

The provision for credit losses was $21 million for the third quarter of 2016, up $7 million from the second quarter of 2016 (see Table 10). See discussion under sections, "Provision for Credit Losses," "Nonaccrual Loans, Potential Problem Loans, and Other Real Estate Owned," and "Allowance for Credit Losses."

Noninterest income for the third quarter of 2016 increased $13 million (16%) to $95 million versus the second quarter of 2016. Fee-based revenue decreased $1 million (2%) from the second quarter of 2016, primarily due to a decrease in insurance commissions. Net mortgage banking income increased to $18 million in third quarter of 2016 versus $4 million in second quarter of 2016, primarily due to gross gains of $9 million on portfolio loan sales during the third quarter of 2016. Capital market fees were $7 million for the third quarter of 2016, an increase of $3 million compared to the second quarter of 2016, due to higher syndication and interest rate-related derivative activity (see Table 3).

Noninterest expense increased $1 million (1%) to $175 million for the third quarter of 2016. Personnel expense was $104 million for the third quarter of 2016, up $2 million (2%) from the second quarter of 2016, and included $1 million of severance. Occupancy expense increased $2 million (16%) primarily due to a lease termination charge related to planned consolidation of office space in Chicago. All remaining noninterest expense categories on a combined basis decreased $3 million compared to second quarter of 2016 (see Table 4).

For the third quarter of 2016, the Corporation recognized income tax expense of $24 million, compared to income tax expense of $21 million for second quarter of 2016. The effective tax rate was 30.52% and 30.39% for the third quarter of 2016 and the second quarter of 2016, respectively.

Comparable Third Quarter Results

The Corporation reported net income of $54 million for the third quarter of 2016, compared to $49 million for the third quarter of 2015. Net income available to common equity was $52 million for the third quarter of 2016, or net income of $0.34 for both basic and diluted earnings per common share. Comparatively, net income available to common equity for the third quarter of 2015, was $47 million, or net income of $0.31 for both basic and diluted earnings per common share (see Table 1).

Fully tax-equivalent net interest income for the third quarter of 2016 was $184 million, $8 million higher than the third quarter of 2015. The Federal funds target rate was 0.50% in third quarter of 2016 compared to 0.25% for third quarter of 2015. The net interest margin between the comparable quarters was down 5 bp, to 2.77% in the third quarter of 2016. Average earning assets increased $1.6 billion to $26.4 billion in the third quarter of 2016, with average loans up $1.6 billion (predominantly due to increases in commercial and residential mortgage loans). On the funding side, average interest-bearing deposits increased $522 million and noninterest-bearing demand deposits were up $588 million from the third quarter of 2015. Average short and long-term funding increased $411 million (primarily FHLB advances, which was partially offset by the early redemption of $430 million of senior notes) (see Table 2).

The provision for credit losses was $21 million for the third quarter of 2016, up $13 million from the third quarter of 2015 (see Table 10). See discussion under sections, “Provision for Credit Losses,” “Nonaccrual Loans, Potential Problem Loans, and Other Real Estate Owned,” and “Allowance for Credit Losses.”

Noninterest income for the third quarter of 2016 increased $15 million (19%) to $95 million versus the third quarter of 2015. Net mortgage banking income increased $12 million, predominantly due to gross gains of $9 million on portfolio loan sales during the third quarter of 2016. Fee-based revenue increased $2 million primarily in insurance commissions. Capital market fees were $7 million for the third quarter of 2016, an increase of $5 million compared to the third quarter of 2015, due to higher syndication and interest rate-related derivative activity (see Table 3).

On a comparable quarter basis, noninterest expense increased $4 million (2%) to $175 million for the third quarter of 2016. Personnel expense was $104 million for the third quarter of 2016, up $3 million (3%) from the third quarter of 2015. FDIC expense was $9 million, up $3 million from the third quarter of 2015, reflecting growth in criticized and risk-weighted assets. All remaining noninterest expense categories on a combined were down $2 million compared to third quarter of 2015 (see Table 4).

The Corporation recognized income tax expense of $24 million for the third quarter of 2016, compared to income tax expense of $22 million for third quarter of 2015. The effective tax rate was 30.52% and 30.36% for the third quarter of 2016 and 2015, respectively.

Segment Review

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

FTP is an important tool for managing the Corporation’s balance sheet structure and measuring risk-adjusted profitability. By appropriately allocating the cost of funding and contingent liquidity to business units, the FTP process improves product pricing which influences the volume and terms of new business and helps to optimize the risk / reward profile of the balance sheet. This process helps align the Corporation’s funding and contingent liquidity risk with its risk appetite and complements broader liquidity and interest rate risk management programs. FTP methodologies are designed to promote more resilient, sustainable business models and centralize the management of funding and contingent liquidity risks. Through FTP, the Corporation transfers these risks to a central management function that can take advantage of natural off-sets, centralized hedging activities, and a broader view of these risks across business units.

Year to Date Segment Review

The Corporate and Commercial Specialty segment consists of lending and deposit solutions to larger businesses, developers, not-for-profits, municipalities, and financial institutions, and the support to deliver, fund, and manage such banking solutions. The Corporate and Commercial Specialty segment had net income of $87 million for the first nine months of 2016, up $2 million compared to $85 million for the first nine months of 2015. Segment revenue increased $12 million to $278 million for the first nine months of 2016 compared to $266 million for the first nine months of 2015, primarily due to higher net interest income from the growth in average loan balances and the interest rate increase at the end of 2015. The credit provision increased $9 million to $39 million during the first nine months of 2016 due to loan growth and a decrease in loan credit quality in the oil and gas portfolio. Average loan balances were $10.1 billion for the first nine months of 2016, up $725 million from the first nine months of 2015. Average deposit balances were $5.9 billion for the first nine months of 2016, up $176 million from the first nine months of 2015. Average allocated capital increased $97 million to $1.1 billion for the first nine months of 2016 reflecting the increase in the segment’s loan balances.

The Community, Consumer, and Business segment consists of lending and deposit solutions to individuals and small to mid-sized businesses and also provides a variety of investment and fiduciary products and services. The Community, Consumer, and Business segment had net income of $50 million for the first nine months of 2016, relatively unchanged from the first nine months of 2015. Segment revenue increased $4 million to $465 million for the first nine months of 2016, primarily due to a $7 million increase in insurance commissions, which was partially offset by a $2 million decrease in trust service fees. Noninterest expense increased $5 million to $371 million for the first nine months of 2016, primarily due to a $3 million increase in legal and professional fees. Average loan balances were $9.3 billion for the first nine months of 2016, up $567 million from the first nine months of 2015. Average deposits were $11.3 billion for the first nine months of 2016, up $534 million from the first nine months of 2015. Average allocated capital decreased $9 million to $631 million for the first nine months of 2016.

The Risk Management and Shared Services segment had net income of $9 million for the first nine months of 2016, down $2 million compared to $11 million for the first nine months of 2015. Net interest income increased $14 million primarily due to an increase in the volume of funding provided to the Corporate and Commercial Specialty segment (as loan growth exceeded deposit growth within this segment), as well as a higher interest rate charged on this funding due to the interest rate increase at the end of 2015. Noninterest income increased $8 million primarily due to an increase in proceeds from BOLI policy redemptions of $3 million, net gains on the sale of assets of $3 million and net gains on the sale of investment securities of $2 million. The credit provision improved $30 million. Average earning asset balances were $6.5 billion for the first nine months of 2016, up $182 million from an average balance of $6.3 billion for the first nine months of 2015, primarily in investment securities. Average deposits were $3.5 billion for the first nine months of 2016, up $386 million from the first nine months of 2015. Average allocated capital increased to $226 million for the first nine months of 2016.

Comparable Quarter Segment Review

The Corporate and Commercial Specialty segment had net income of $32 million for the third quarter of 2016, up $5 million from the comparable quarter in 2015. Segment revenue increased $7 million compared to third quarter of 2015, primarily due to higher net interest income from the growth in average loan balances. Average loan balances were $10.4 billion for the third quarter of 2016, up $969 million from an average balance of $9.5 billion for third quarter of 2015. Average deposit balances were $6.2 billion for the third quarter of 2016, up $183 million from the comparable quarter of 2015. Average allocated capital increased $103 million to $1.1 billion for third quarter of 2016, reflecting the increase in the segment's loan balances.

The Community, Consumer, and Business Banking segment had net income of $21 million for the third quarter of 2016, up $5 million compared to $16 million for third quarter of 2015. Segment revenue increased $13 million to $166 million for the third quarter of 2016, primarily due to gross gains of $9 million on portfolio loan sales during the third quarter of 2016. Total noninterest expense for third quarter of 2016 was $127 million, up $5 million from the comparable quarter of 2015. Average loan balances were $9.4 billion for the third quarter of 2016, up $496 million from the comparable quarter of 2015. Average deposits were $11.5 billion for the third quarter of 2016, up $557 million from average deposits of $11.0 billion for the comparable quarter of 2015.

The Risk Management and Shared Services segment had net income of $501,000 for the third quarter of 2016, down $5 million from the comparable quarter in 2015. Net interest income increased $4 million primarily due to an increase in the volume of funding provided to the Corporate and Commercial Specialty segment (as loan growth exceeded deposit growth within this segment), as well as a higher interest rate charged on this funding due to the interest rate increase at the end of 2015.The credit provision increased $13 million due to loan growth and a decrease in loan credit quality. Average earning asset balances were $6.6 billion for third quarter of 2016, up $137 million from the comparable quarter of 2015, and average deposits were $3.7 billion for third quarter of 2016, up $370 million versus the comparable quarter of 2015.

Critical Accounting Policies

In preparing the consolidated financial statements, management is required to make estimates and assumptions that affect the reported amounts of assets and liabilities as of the date of the balance sheet and revenues and expenses for the period. Actual results could differ significantly from those estimates. Estimates that are particularly susceptible to significant change include the determination of the allowance for loan losses, goodwill impairment assessment, mortgage servicing rights valuation, and income taxes. A discussion of these policies can be found in the "Critical Accounting Policies" section in Management's Discussion and

Analysis of Financial Condition and Results of Operations included in the Corporation's 2015 Annual Report on Form 10-K. There have been no changes in the Corporation's application of critical accounting policies since December 31, 2015. The mortgage servicing rights valuation has been included due to the continued impact of the low interest rate environment.

Mortgage Servicing Rights Valuation: The fair value of the Corporation's mortgage servicing rights asset is important to the presentation of the consolidated financial statements since the mortgage servicing rights are carried on the consolidated balance sheet at the lower of amortized cost or estimated fair value. Mortgage servicing rights do not trade in an active open market with readily observable prices. As such, like other participants in the mortgage banking business, the Corporation relies on an independent valuation from a third party which uses a discounted cash flow model to estimate the fair value of its mortgage servicing rights. The use of a discounted cash flow model involves judgment, particularly of estimated prepayment speeds of underlying mortgages serviced and the overall level of interest rates. Loan type and note interest rate are the predominant risk characteristics of the underlying loans used to stratify capitalized mortgage servicing rights for purposes of measuring impairment. The Corporation periodically reviews the assumptions underlying the valuation of mortgage servicing rights. While the Corporation believes that the values produced by the discounted cash flow model are indicative of the fair value of its mortgage servicing rights portfolio, these values can change significantly depending upon key factors, such as the then current interest rate environment, estimated prepayment speeds of the underlying mortgages serviced, and other economic conditions. The proceeds that might be received should the Corporation actually consider a sale of some or all of the mortgage servicing rights portfolio could differ from the valuation amounts reported at any point in time.

To better understand the sensitivity of the impact of prepayment speeds and refinance rates on the value of the mortgage servicing rights asset at September 30, 2016, (holding all other factors unchanged), if refinance rates were to decrease 50 bp, the estimated value of the mortgage servicing rights asset would have been approximately $11 million (or 18%) lower. Conversely, if refinance rates were to increase 50 bp, the estimated value of the mortgage servicing rights asset would have been approximately $9 million (or 16%) higher. However, the Corporation's potential recovery recognition due to valuation improvement is limited to the balance of the mortgage servicing rights valuation reserve, which was approximately $3 million at September 30, 2016. The potential recovery recognition is constrained as the Corporation has elected to use the amortization method of accounting (rather than fair value measurement accounting). Under the amortization method, mortgage servicing rights are carried at the lower of the initial capitalized amount, net of accumulated amortization, or estimated fair value. Therefore, the mortgage servicing right asset may only be marked up to the extent of the previously recognized valuation reserve. The Corporation believes the mortgage servicing rights asset is properly recorded in the consolidated financial statements. See Note 8, "Goodwill and Other Intangible Assets," of the notes to consolidated financial statements and section "Noninterest Income."

Future Accounting Pronouncements

New accounting policies adopted by the Corporation are discussed in Note 3, "New Accounting Pronouncements Adopted," of the notes to consolidated financial statements. The expected impact of accounting pronouncements recently issued or proposed but not yet required to be adopted are discussed below. To the extent the adoption of new accounting standards materially affects the Corporation's financial condition, results of operations, or liquidity, the impacts are discussed in the applicable sections of this financial review and the notes to consolidated financial statements.

In August 2016, the FASB issued an amendment to provide clarification on where to classify cash flows involving certain cash receipts and cash payments. Under the new guidance, cash payments for debt prepayment or debt extinguishment costs should be classified as cash outflows for financing activities. The new guidance also details the specific classification of contingent consideration cash payments made after a business combination depending on the timing of payments. Lastly, cash proceeds received from corporate owned life insurance policies (including BOLI) should be classified as cash inflows from investing, while the cash payments for the premiums may be classified as cash outflows for investing, operating, or a combination of both. This amendment is effective for fiscal years beginning after December 15, 2017, including interim periods within those fiscal years. Entities should apply the amendment retrospectively to each period presented. Early adoption is permitted, including in an interim period; however, all of the amendments must be adopted in the same period. The Corporation intends to adopt the accounting standard during the first quarter of 2018, as required, and is currently evaluating the impact on its results of operations, financial position, and liquidity.

In June 2016, the FASB issued an amendment to replace the current incurred loss impairment methodology. Under the new guidance, entities will be required to measure expected credit losses by utilizing forward-looking information to assess an entity's allowance for credit losses. The guidance also requires consideration of a broader range of reasonable and supportable information to inform credit loss estimates. The measurement of expected credit losses is based on relevant information about past events, including historical experience, current conditions, and reasonable and supportable forecasts that affect the collectability of the reported amount. An entity must use judgment in determining the relevant information and estimation methods that are appropriate in its circumstances. This amendment is effective for fiscal years beginning after December 15, 2019, including interim periods within those fiscal years. Entities should apply the amendment by means of a cumulative-effect adjustment to retained earnings as of the beginning of the fiscal year of adoption. Early adoption is permitted. The Corporation intends to adopt the accounting standard, as required, and is currently evaluating the impact on its results of operations, financial position, and liquidity.

In March 2016, the FASB issued an amendment involving several aspects of the accounting for share-based payment transactions, including the income tax consequences, classification of awards as either equity or liabilities, and classification on the statement of cash flows. This amendment is effective for annual periods, and interim periods within those annual periods, beginning after December 15, 2016. Entities should apply the amendment related to the timing of when excess tax benefits are recognized, minimum statutory withholding requirements, forfeitures, and intrinsic value using a modified retrospective transition method by means of a cumulative-effect adjustment to equity as of the beginning of the period in which the guidance is adopted. Entities should apply the amendment related to the presentation of employee taxes paid on the statement of cash flows when an employer withholds shares to meet the minimum statutory withholding requirement retrospectively. The amendment requiring recognition of excess tax benefits and tax deficiencies in the income statement and the practical expedient for estimating expected term should be applied prospectively. An entity may elect to apply the amendments related to the presentation of excess tax benefits on the statement of cash flows using either a prospective transition method or a retrospective transition method. Early adoption is permitted. The Corporation intends to adopt the accounting standard during the first quarter of 2017, as required, with no material impact on its results of operations, financial position, and liquidity.

In March 2016, the FASB issued an amendment to eliminate the requirement that when an investment qualifies for use of the equity method as a result of an increase in the level of ownership interest or degree of influence, an investor must adjust the investment, results of operations, and retained earnings retroactively on a step-by-step basis as if the equity method had been in effect during all previous periods that the investment had been held. The amendments require that the equity method investor add the cost of acquiring the additional interest in the investee to the current basis of the investor's previously held interest and adopt the equity method of accounting as of the date the investment becomes qualified for equity method accounting. Therefore, upon qualifying for the equity method of accounting, no retroactive adjustment of the investment is required. The amendments require that an entity that has an available-for-sale equity security that becomes qualified for the equity method of accounting recognize through earnings the unrealized holding gain or loss in accumulated other comprehensive income at the date the investment becomes qualified for use of the equity method. This amendment is effective for annual periods, and interim periods within those annual periods, beginning after December 15, 2016. Entities should apply the amendment prospectively to increases in the level of ownership interest or degree of influence that result in the adoption of the equity method. Early adoption is permitted. The Corporation intends to adopt the accounting standard during the first quarter of 2017, as required, with no material impact on its results of operations, financial position, and liquidity.

In February 2016, the FASB issued an amendment to provide transparency and comparability among organizations by recognizing lease assets and lease liabilities on the balance sheet and disclosing key information about leasing arrangements. This amendment will require lessees to recognize the following for all leases (with the exception of short-term leases) at the commencement date: 1) a lease liability, which is a lessee's obligation to make lease payments arising from a lease, measured on a discounted basis; and 2) a right-of-use asset, which is an asset that represents the lessee's right to use, or control the use of, a specified asset for the lease term. Under the new guidance, lessor accounting is largely unchanged. This amendment is effective for annual periods, and interim periods within those annual periods, beginning after December 15, 2018. Entities are required to recognize and measure leases at the beginning of the earliest period presented using a modified retrospective approach. The modified retrospective approach includes a number of optional practical expedients that entities may elect to apply. These practical expedients relate to the identification and classification of leases that commenced before the effective date, initial direct costs for leases that commenced before the effective date, and the ability to use hindsight in evaluating lessee options to extend or terminate a lease or to purchase the underlying asset. Early adoption is permitted. The Corporation intends to adopt the accounting standard during the first quarter of 2019, as required, and is currently evaluating the impact on its results of operations, financial position, and liquidity.

In January 2016, the FASB issued an amendment to address certain aspects of recognition, measurement, presentation, and disclosure of financial instruments. This amendment supersedes the guidance to classify equity securities with readily determinable fair values into different categories, requires equity securities to be measured at fair value with changes in the fair value recognized through net income, and simplifies the impairment assessment of equity investments without readily determinable fair values. The amendment requires public business entities that are required to disclose the fair value of financial instruments measured at amortized cost on the balance sheet to measure that fair value using the exit price notion. The amendment requires an entity to present separately in other comprehensive income the portion of the total change in the fair value of a liability resulting from a change in the instrument-specific credit risk when the entity has elected to measure the liability at fair value in accordance with the fair value option. The amendment requires separate presentation of financial assets and financial liabilities by measurement category and form of financial asset on the balance sheet or in the accompanying notes to the financial statements. The amendment reduces diversity in current practice by clarifying that an entity should evaluate the need for a valuation allowance on a deferred tax asset related to available for sale securities in combination with the entity's other deferred tax assets. This amendment is effective for fiscal years beginning after December 15, 2017, including interim periods within those fiscal years. Entities should apply the amendment by means of a cumulative-effect adjustment as of the beginning of the fiscal year of adoption, with the exception of the amendment related to equity securities without readily determinable fair values, which should be applied prospectively to equity investments that exist as of the date of adoption. The Corporation intends to adopt the accounting standard during the first quarter of 2018, as required, and is currently evaluating the impact on its results of operations, financial position, and liquidity.

In May 2014, the FASB issued an amendment to clarify the principles for recognizing revenue and to develop a common revenue standard. The standard outlines a single comprehensive model for entities to use in accounting for revenue arising from contracts with customers and supersedes most current revenue recognition guidance, including industry-specific guidance. The core principle of the revenue model is that "an entity recognizes revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services." In applying the revenue model to contracts within its scope, an entity should apply the following steps: (1) Identify the contract(s) with a customer, (2) Identify the performance obligations in the contract, (3) Determine the transaction price, (4) Allocate the transaction price to the performance obligations in the contract, and (5) Recognize revenue when (or as) the entity satisfies a performance obligation. The standard applies to all contracts with customers except those that are within the scope of other topics in the FASB Codification. The standard also requires significantly expanded disclosures about revenue recognition. In March 2016, the FASB issued amendments that intend to improve the operability and understandability of the implementation guidance on principal versus agent considerations by amending certain existing illustrative examples and adding additional illustrative examples to assist in the application of the guidance. In May 2016, the FASB issued an amendment addressing clarifications to the guidance on collectability, presentation of sales taxes and other similar taxes collected, noncash consideration, and completed contracts at transition, while retaining the related principles contained in the new revenue recognition standard. In April 2016, the FASB issued an amendment clarifying guidance related to identifying performance obligations and licensing implementation guidance, while retaining the related principles contained in the new revenue recognition standard. The amendment was originally effective for annual reporting periods beginning after December 15, 2016 (including interim reporting periods within those periods); however, in July 2015, the FASB approved a one year deferral of the effective date to December 31, 2017. Early application is not permitted. The Corporation intends to adopt the accounting standard during the first quarter of 2018, as required, and is currently evaluating the impact on its results of operations, financial position, and liquidity.

Recent Developments

On October 25, 2016, the Board of Directors declared a regular quarterly cash dividend of $0.12 per common share, payable on December 15, 2016, to shareholders of record at the close of business on December 1, 2016. The Board of Directors also declared a regular quarterly cash dividend of $0.3828125 per depositary share on Associated Banc-Corp's 6.125% Series C Perpetual Preferred Stock and a regular quarterly cash dividend of $0.3359375 per depositary share on Associated Banc-Corp's 5.375% Series D Perpetual Preferred Stock payable on December 15, 2016, to shareholders of record at the close of business on December 1, 2016. These cash dividends have not been reflected in the accompanying consolidated financial statements.

ITEM 3. Quantitative and Qualitative Disclosures About Market Risk

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

ITEM 4. Controls and Procedures

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

As of September 30, 2016 the Corporation's management carried out an evaluation, under the supervision and with the participation of the Corporation's Chief Executive Officer and Chief Financial Officer, of the effectiveness of its disclosure controls and procedures. Based on the foregoing, its Chief Executive Officer and Chief Financial Officer concluded that the Corporation's disclosure controls and procedures were effective as of September 30, 2016. No changes were made to the Corporation's internal control over financial reporting (as defined in Rule 13a-15(f) of the Exchange Act of 1934) during the last fiscal quarter that have materially affected, or are reasonably likely to materially affect, the Corporation's internal control over financial reporting.

PART II - OTHER INFORMATION

ITEM 1. Legal Proceedings

The information required by this item is set forth in Part I, Item I under Note 12, "Commitments, Off-Balance Sheet Arrangements, and Legal Proceedings."

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

Following are the Corporation's monthly common stock and depositary share purchases during the third quarter of 2016. For additional discussion on the Corporation's common stock and depositary share purchases, see section "Capital" included under Part I, Item 2 of this document.

Common Stock Purchases:

	Total Number of Shares Purchased(a)	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Maximum Number of Shares that May Yet Be Purchased Under the Plans or Programs(b)
Period				
July 1, 2016 - July 31, 2016	—	$ —	—	—
August 1, 2016 - August 31, 2016	—	—	—	—
September 1, 2016 - September 30, 2016	—	—	—	—
Total	—	$ —	—	—

(a) During the third quarter of 2016, the Corporation repurchased approximately 13,000 common shares for minimum tax withholding settlements on equity compensation. These purchases do not count against the maximum number of shares that may yet be purchased under the authorization described below.

(b) On April 21, 2015, the Board of Directors authorized the repurchase of up to $125 million of the Corporation's common stock, of which approximately $88 million remained available to repurchase as of September 30, 2016. Using the closing stock price on September 30, 2016 of $19.59, a total of approximately 4.5 million shares of common stock remained available to be repurchased under the previously approved Board authorization as of September 30, 2016.

Series B Preferred Stock Depositary Share Purchases:

	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Maximum Number of Shares that May Yet Be Purchased Under the Plans or Programs(a)
Period				
July 1, 2016 - July 31, 2016	—	$ —	—	—
August 1, 2016 - August 31, 2016	—	—	—	—
September 1, 2016 - September 30, 2016	—	—	—	—
Total	—	$ —	—	—

(a) In 2011, the Corporation issued 2,600,000 depositary shares, each representing a 1/40th interest in a share of the Corporation's 8.00% Perpetual Preferred Stock, Series B (the "Series B Preferred Stock"). On September 15, 2016, the Corporation redeemed all remaining depositary shares of the Corporation's Series B Preferred Stock.

Series C Preferred Stock Depositary Share Purchases:

	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Maximum Number of Shares that May Yet Be Purchased Under the Plans or Programs(a)
Period				
July 1, 2016 - July 31, 2016	—	$ —	—	—
August 1, 2016 - August 31, 2016	—	—	—	—
September 1, 2016 - September 30, 2016	—	—	—	—
Total	—	$ —	—	—

(a) In June 2015, the Corporation issued 2,600,000 depositary shares, each representing a 1/40th interest in a share of the Corporation's 6.125% Non-Cumulative Perpetual Preferred Stock, Series C (the "Series C Preferred Stock"). On August 28, 2015, the Board of Directors authorized the repurchase of up to $10 million of the Series C Preferred Stock. As of September 30, 2016, $10 million remained available under this repurchase authorization as the Corporation has not yet repurchased any of the Series C Preferred Stock under this authorization. Using the closing price on September 30, 2016 of $26.41, a total of approximately 379,000 shares remained available to be repurchased under the previously approved Board authorization as of September 30, 2016.

ITEM 6. Exhibits

Exhibit (3.1), Amended and Restated Articles of Incorporation, incorporated by reference to Exhibit (3) to the Corporation's Quarterly Report on Form 10-Q filed on May 8, 2006.

Exhibit (3.2), Articles of Amendment to the Amended and Restated Articles of Incorporation of Associated Banc-Corp with respect to its 8.00% Perpetual Preferred Stock, Series B, dated September 12, 2011, incorporated by reference to Exhibit (3.1) to the Corporation's Current Report on Form 8-K filed on September 15, 2011.

Exhibit (3.3), Articles of Amendment to the Amended and Restated Articles of Incorporation of Associated Banc-Corp regarding the rights and preferences of preferred stock, effective April 25, 2012, incorporated by reference to Exhibit (3.1, 4.1) to the Corporation's Current Report on Form 8-K filed on April 25, 2012.

Exhibit (3.4), Articles of Amendment to the Amended and Restated Articles of Incorporation of Associated Banc-Corp with respect to its 6.125% Non-Cumulative Perpetual Preferred Stock, Series C, dated June 4, 2015, incorporated by reference to Exhibit (3.1, 4.1) to the Corporation's Current Report on Form 8-K filed on June 8, 2015.

Exhibit (3.5), Certificate Related to Series A Preferred Stock dated August 15, 2016, incorporated by reference to Exhibit (3.1) to the Corporation's Current Report on Form 8-K filed on August 16, 2016.

Exhibit (3.6), Articles of Amendment to the Amended and Restated Articles of Incorporation of Associated Banc-Corp with respect to its 5.375% Non-Cumulative Perpetual Preferred Stock, Series D, dated September 12, 2016, incorporated by reference to Exhibit (3.1, 4.1) to the Corporation's Current Report on Form 8-K filed on September 15, 2016.

Exhibit (4.1), Deposit Agreement among Associated Banc-Corp, Wells Fargo Bank, N.A., and the holders from time to time of the Depositary Receipts described therein, and Form of Depositary Receipt, dated as of September 15, 2016, incorporated by reference to Exhibit (4.2) to the Corporation's Current Report on Form 8-K filed on September 15, 2016.

Exhibit (11), Statement regarding computation of per share earnings. The information required by this item is set forth in Part I, Item I under Note 4, "Earnings Per Common Share."

Exhibit (31.1), Certification Under Section 302 of Sarbanes-Oxley by Philip B. Flynn, Chief Executive Officer.

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

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

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

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

	ASSOCIATED BANC-CORP
	(Registrant)
Date: October 27, 2016	/s/ Philip B. Flynn
	Philip B. Flynn President and Chief Executive Officer
Date: October 27, 2016	/s/ Christopher J. Del Moral-Niles
	Christopher J. Del Moral-Niles Chief Financial Officer and Principal Accounting Officer

Exhibit 31.1

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

CERTIFICATIONS

I, Philip B. Flynn, certify that:

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

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

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

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

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

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

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

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

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

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

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

Date: October 27, 2016

/s/ Philip B. Flynn

Philip B. Flynn

President and Chief Executive Officer

Exhibit 31.2

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

CERTIFICATIONS

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

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

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

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

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

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

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

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

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

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

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

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

Date: October 27, 2016

/s/ Christopher J. Del Moral-Niles

Christopher J. Del Moral-Niles
Chief Financial Officer

Exhibit 32

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

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

1. The accompanying Quarterly Report of the Company on Form 10-Q for the quarter ended September 30, 2016 (the "Report"), fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

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

/s/ Philip B. Flynn

Philip B. Flynn
Chief Executive Officer
October 27, 2016

/s/ Christopher J. Del Moral-Niles

Christopher J. Del Moral-Niles
Chief Financial Officer
October 27, 2016