

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

**FORM 10-Q**

(Mark One)

**Quarterly Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934**

**For the quarterly period ended June 30, 2019**

**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: 000-08185**

**CHEMICAL FINANCIAL CORPORATION**

(Exact Name of Registrant as Specified in Its Charter)

**Michigan**

(State or Other Jurisdiction of Incorporation or Organization)

**38-2022454**

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

**333 W. Fort Street,  
Detroit,**

(Address of Principal Executive Offices)

**Suite 1800  
Michigan**

**48226**

(Zip Code)

**(800) 867-9757**

(Registrant's Telephone Number, Including Area Code)

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

<b>Title of each class</b>	<b>Trading Symbol(s)</b>	<b>Name of each exchange on which registered</b>
Common Stock	CHFC	The NASDAQ Stock Market

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

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted 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," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act. (Check one):

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

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

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

The number of shares outstanding of the registrant's Common Stock, \$1 par value, as of July 26, 2019, was 71,558,755 shares.

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## Forward-Looking Statements

This report contains forward-looking statements that are based on management's beliefs, assumptions, current expectations, estimates and projections about the financial services industry, the economy and us. Words and phrases such as "anticipate," "believe," "continue," "estimate," "expect," "forecast," "future," "intend," "is likely," "judgment," "look ahead," "look forward," "on schedule," "opinion," "opportunity," "plan," "potential," "predict," "probable," "project," "should," "strategic," "trend," "will," and variations of such words and phrases or similar expressions are intended to identify such forward-looking statements. These statements include, among others, statements related to: our belief that unrealized losses on our investment securities at June 30, 2019 were temporary in nature, our strategic plan to develop customer relationships that will drive core deposit growth and stability, management's belief that our commercial and commercial real estate loan portfolios are generally well-secured, management's belief that our borrowing capacity could be expanded, the impact of projected changes in net interest income assuming changes to short-term market interest rates, statements regarding our risk exposure, statements related to our proposed merger with TCF Financial Corporation ("TCF"), including the expected timing of the consummation of the merger, as well as statements related to the anticipated effects on results of operations and financial condition from expected developments. All statements referencing future time periods are forward-looking.

Management's determination of the provision and allowance for loan losses; the carrying value of acquired loans, goodwill and mortgage servicing rights; the fair value of investment securities (including whether any impairment on any investment security is temporary or other-than-temporary and the amount of any impairment); and management's assumptions concerning pension and other postretirement benefit plans involve judgments that are inherently forward-looking. There can be no assurance that future loan losses will be limited to the amounts estimated. All of the information concerning interest rate sensitivity is forward-looking. The future effect of changes in the financial and credit markets and the national and regional economies on the banking industry, generally, and on us, specifically, are also inherently uncertain.

Forward-looking statements are based upon current beliefs and expectations and involve substantial risks and uncertainties which change over time, are difficult to predict and are generally beyond our control. Accordingly, such statements are not guarantees of future performance and involve certain risks, uncertainties and assumptions ("risk factors") that are difficult to predict with regard to timing, extent, likelihood and degree of occurrence. Therefore, actual results and outcomes may materially differ from what may be expressed or forecasted in such forward-looking statements. We undertake no obligation to update, amend or clarify forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law. Risk factors include, without limitation:

- our inability to attract and retain new commercial lenders and other bankers as well as key operations staff in light of competition for experienced employees in the banking industry;
- operational and regulatory challenges associated with our information technology systems and policies and procedures in light of our rapid growth and systems conversion in 2018;
- our inability to grow deposits;
- our inability to execute on our strategy to expand investments and commercial lending;
- our inability to efficiently manage our operating expenses;
- the possibility that our previously announced merger with TCF does not close when expected or at all because conditions to closing are not satisfied on a timely basis or at all;
- the occurrence of any event, change or other circumstance that could give rise to the right of Chemical, TCF or both to terminate the merger agreement;
- the outcome of pending or threatened litigation or of matters before regulatory agencies, whether currently existing or commencing in the future, including litigation related to our pending merger with TCF;
- the diversion of management time from core banking functions due to merger-related issues;
- potential difficulty in maintaining relationships with clients, employees or business partners as a result of our pending merger with TCF;
- the possibility that the anticipated benefits of our pending merger with TCF, including anticipated cost savings and strategic gains, are not realized when expected or at all, including as a result of the impact of, or problems arising from, the integration of the two companies or as a result of the strength of the economy, competitive factors in the areas where Chemical and TCF do business, or as a result of other unexpected factors or events;
- the impact of purchase accounting with respect to the pending merger with TCF, or any change in the assumptions used regarding the assets purchased and liabilities assumed to determine their fair value;
- diversion of management's attention from ongoing business operations and opportunities as a result of the pending merger with TCF;
- potential adverse reactions or changes to business or employee relationships, including those resulting from the announcement or completion of the pending merger with TCF;
- economic conditions (both generally and in our markets) may be less favorable than expected, which could result in,

- among other things, a deterioration in credit quality, a reduction in demand for credit and a decline in real estate values;
- a general decline in the real estate and lending markets, particularly in our market areas, could negatively affect our financial results;
  - increased cybersecurity risk, including potential network breaches, business disruptions, or financial losses;
  - increases in competitive pressure in the banking and financial services industry;
  - increased capital requirements, other regulatory requirements or enhanced regulatory supervision;
  - the inability to sustain revenue and earnings growth;
  - the inability to efficiently manage operating expenses;
  - the inability to increase our investment securities portfolio as a percentage of total assets;
  - current or future restrictions or conditions imposed by our regulators on our operations may make it more difficult for us to achieve our goals;
  - legislative or regulatory changes, including changes in accounting standards and compliance requirements, may adversely affect us;
  - changes in the interest rate environment may reduce margins or the volumes or values of the loans we make or have acquired; and
  - economic, governmental, or other factors may prevent the projected population, residential, and commercial growth in the markets in which we operate.

In addition, risk factors include, but are not limited to, the risk factors described in Item 1A of our Annual Report on Form 10-K for the year ended December 31, 2018, in the Joint Proxy Statement/Prospectus regarding the proposed merger that was filed with the SEC on May 3, 2019 pursuant to Rule 424(b)(3) by Chemical or otherwise disclosed in documents filed or furnished by the Corporation with or to the SEC after the filing of such Annual Report on Form 10-K. These and other factors are representative of the risk factors that may emerge and could cause a difference between an ultimate actual outcome and a preceding forward-looking statement.

**Part I. Financial Information**

**Item 1. Financial Statements**

**Chemical Financial Corporation  
Consolidated Statements of Financial Position**

<b>(Dollars in thousands, except per share data)</b>	<b>June 30, 2019</b>	<b>December 31, 2018</b>
	<b>(Unaudited)</b>	
<b>Assets</b>		
Cash and cash equivalents:		
Cash and cash due from banks	\$ 200,034	\$ 228,527
Interest-bearing deposits with the Federal Reserve Bank and other banks and federal funds sold	392,724	267,312
Total cash and cash equivalents	592,758	495,839
Investment securities:		
Carried at fair value	3,369,872	3,021,832
Held-to-maturity, at amortized cost (fair value of \$575,502 and \$618,672, respectively)	566,046	624,099
Total investment securities	3,935,918	3,645,931
Loans held-for-sale, at fair value	33,019	85,030
Loans	15,861,903	15,269,779
Allowance for loan losses	(115,967)	(109,984)
<b>Net loans</b>	15,745,936	15,159,795
Premises and equipment	123,708	123,442
Loan servicing rights, at fair value	60,658	71,013
Goodwill	1,134,568	1,134,568
Core deposit intangibles	25,835	28,556
Interest receivable and other assets	839,365	754,167
<b>Total assets</b>	\$ 22,491,765	\$ 21,498,341
<b>Liabilities</b>		
Deposits:		
Noninterest-bearing	\$ 3,925,777	\$ 3,809,252
Interest-bearing	11,953,659	11,784,030
<b>Total deposits</b>	15,879,436	15,593,282
Collateralized customer deposits	291,671	382,687
Short-term borrowings	2,615,000	2,035,000
Long-term borrowings	426,069	426,002
Interest payable and other liabilities	326,054	225,110
<b>Total liabilities</b>	19,538,230	18,662,081
<b>Shareholders' equity</b>		
Preferred stock, no par value:		
Authorized – 2,000,000 shares at 6/30/19 and 12/31/18, none issued	—	—
Common stock, \$1.00 par value per share:		
Authorized – 135,000,000 shares at 6/30/19 and 12/31/18		
Issued and outstanding – 71,558,755 shares at 6/30/19 and 71,460,119 shares at 12/31/18	71,559	71,460
Additional paid-in capital	2,212,665	2,209,761
Retained earnings	699,712	616,149
Accumulated other comprehensive loss	(30,401)	(61,110)
<b>Total shareholders' equity</b>	2,953,535	2,836,260
<b>Total liabilities and shareholders' equity</b>	\$ 22,491,765	\$ 21,498,341

See accompanying notes to Consolidated Financial Statements (unaudited).

**Chemical Financial Corporation**  
**Consolidated Statements of Income**  
(Unaudited)

(Dollars in thousands, except per share data)	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
<b>Interest income</b>				
Interest and fees on loans	\$ 188,875	\$ 165,388	\$ 372,167	\$ 322,206
Interest on investment securities:				
Taxable	21,214	14,706	41,715	27,125
Tax-exempt	7,297	5,998	14,467	11,554
Dividends on nonmarketable equity securities	2,401	2,189	4,139	4,090
Interest on deposits with the Federal Reserve Bank and other banks and federal funds sold	1,641	1,301	2,921	2,541
<b>Total interest income</b>	<b>221,428</b>	<b>189,582</b>	<b>435,409</b>	<b>367,516</b>
<b>Interest expense</b>				
Interest on deposits	42,011	19,707	81,009	35,624
Interest on collateralized customer deposits	537	641	1,164	1,165
Interest on short-term borrowings	11,345	10,408	20,523	18,574
Interest on long-term borrowings	2,374	1,289	4,728	2,753
<b>Total interest expense</b>	<b>56,267</b>	<b>32,045</b>	<b>107,424</b>	<b>58,116</b>
<b>Net interest income</b>	<b>165,161</b>	<b>157,537</b>	<b>327,985</b>	<b>309,400</b>
Provision for loan losses	7,502	9,572	9,561	15,828
<b>Net interest income after provision for loan losses</b>	<b>157,659</b>	<b>147,965</b>	<b>318,424</b>	<b>293,572</b>
<b>Noninterest income</b>				
Service charges and fees on deposit accounts	8,247	9,690	16,214	19,124
Wealth management revenue	6,966	7,188	12,838	13,499
Other charges and fees for customer services	5,755	4,799	10,579	9,582
Net gain on sale of loans and other mortgage banking revenue	4,532	8,844	5,426	21,379
Net gain on sale of investment securities	4,160	3	4,247	3
Other	8,504	7,494	13,717	14,985
<b>Total noninterest income</b>	<b>38,164</b>	<b>38,018</b>	<b>63,021</b>	<b>78,572</b>
<b>Operating expenses</b>				
Salaries, wages and employee benefits	62,129	56,148	122,146	111,705
Occupancy	7,786	7,679	16,063	15,690
Equipment and software	7,076	8,276	14,055	15,935
Outside processing and service fees	12,206	10,673	23,932	21,029
Merger expenses	3,042	—	8,466	—
Other	18,764	21,785	35,356	41,812
<b>Total operating expenses</b>	<b>111,003</b>	<b>104,561</b>	<b>220,018</b>	<b>206,171</b>
Income before income taxes	84,820	81,422	161,427	165,973
Income tax expense	15,226	12,434	28,891	25,389
<b>Net income</b>	<b>\$ 69,594</b>	<b>\$ 68,988</b>	<b>\$ 132,536</b>	<b>\$ 140,584</b>
<b>Earnings per common share:</b>				
Basic	\$ 0.97	\$ 0.97	\$ 1.85	\$ 1.97
Diluted	\$ 0.96	\$ 0.96	\$ 1.84	\$ 1.95

See accompanying notes to Consolidated Financial Statements (unaudited).

**Chemical Financial Corporation**  
**Consolidated Statements of Comprehensive Income**  
**(Unaudited)**

<b>(Dollars in thousands)</b>	<b>Three Months Ended June 30,</b>		<b>Six Months Ended June 30,</b>	
	<b>2019</b>	<b>2018</b>	<b>2019</b>	<b>2018</b>
Net income	<b>\$ 69,594</b>	<b>\$ 68,988</b>	<b>\$ 132,536</b>	<b>\$ 140,584</b>
Other comprehensive income (loss), net of tax:				
Unrealized holding gains (losses) on securities carried at fair value arising during the period	<b>36,809</b>	(11,622)	<b>74,253</b>	(39,229)
Reclassification adjustment for (gains) losses included in net income	<b>(4,160)</b>	(3)	<b>(4,247)</b>	(3)
Tax effect	<b>(6,856)</b>	2,441	<b>(14,701)</b>	8,239
Net unrealized gains (losses) on securities carried at fair value, net of tax	<b>25,793</b>	(9,184)	<b>55,305</b>	(30,993)
Unrealized gains (losses) on interest rate swaps designated as cash flow hedges	<b>(21,229)</b>	4,102	<b>(28,781)</b>	12,065
Reclassification adjustment for (gains) losses included in net income	<b>(1,256)</b>	(589)	<b>(2,544)</b>	(347)
Tax effect	<b>4,722</b>	(738)	<b>6,578</b>	(2,461)
Net unrealized (losses) gains on interest rate swaps designated as cash flow hedges, net of tax	<b>(17,763)</b>	2,775	<b>(24,747)</b>	9,257
Adjustment for pension and other postretirement benefits	<b>96</b>	142	<b>191</b>	284
Tax effect	<b>(20)</b>	(30)	<b>(40)</b>	(60)
Net adjustment for pension and other postretirement benefits	<b>76</b>	112	<b>151</b>	224
Other comprehensive income (loss), net of tax	<b>8,106</b>	(6,297)	<b>30,709</b>	(21,512)
Total comprehensive income, net of tax	<b>\$ 77,700</b>	<b>\$ 62,691</b>	<b>\$ 163,245</b>	<b>\$ 119,072</b>

See accompanying notes to Consolidated Financial Statements (unaudited).

**Chemical Financial Corporation**  
**Consolidated Statements of Changes in Shareholders' Equity**  
**(Unaudited)**

(Dollars in thousands)	Common stock	Additional paid-in capital	Retained earnings	Accumulated other comprehensive income (loss)	Total
<b>For the three months ended June 30, 2019</b>					
Beginning Balance	\$ 71,551	\$ 2,209,860	\$ 654,605	\$ (38,507)	\$ 2,897,509
Comprehensive income			69,594	8,106	77,700
Cash dividends declared and paid of \$0.34 per share			(24,487)		(24,487)
Net shares issued under share-based compensation plans	8	49			57
Share-based compensation expense	—	2,756			2,756
Ending Balance	<u>\$ 71,559</u>	<u>\$ 2,212,665</u>	<u>\$ 699,712</u>	<u>\$ (30,401)</u>	<u>\$ 2,953,535</u>
<b>For the three months ended June 30, 2018</b>					
Beginning Balance	\$ 71,350	\$ 2,201,803	\$ 472,604	\$ (41,054)	\$ 2,704,703
Comprehensive income			68,988	(6,297)	62,691
Cash dividends declared and paid of \$0.28 per share			(20,062)		(20,062)
Net shares issued under share-based compensation plans	68	1,173			1,241
Share-based compensation expense	—	2,426			2,426
Ending Balance	<u>\$ 71,418</u>	<u>\$ 2,205,402</u>	<u>\$ 521,530</u>	<u>\$ (47,351)</u>	<u>\$ 2,750,999</u>
<b>For the six months ended June 30, 2019</b>					
Beginning Balance	\$ 71,460	\$ 2,209,761	\$ 616,149	\$ (61,110)	\$ 2,836,260
Comprehensive income			132,536	30,709	163,245
Cash dividends declared and paid of \$0.68 per share			(48,973)		(48,973)
Net shares issued under share-based compensation plans	99	(2,225)			(2,126)
Share-based compensation expense	—	5,129			5,129
Ending Balance	<u>\$ 71,559</u>	<u>\$ 2,212,665</u>	<u>\$ 699,712</u>	<u>\$ (30,401)</u>	<u>\$ 2,953,535</u>
<b>For the six months ended June 30, 2018</b>					
Beginning Balance	\$ 71,207	\$ 2,203,637	\$ 419,403	\$ (25,498)	\$ 2,668,749
Cumulative effect adjustment of change in accounting policy, net of tax impact <sup>(1)</sup>			1,680	(341)	1,339
Comprehensive income			140,584	(21,512)	119,072
Cash dividends declared and paid of \$0.56 per share			(40,137)		(40,137)
Net shares issued under share-based compensation plans	211	(2,313)			(2,102)
Share-based compensation expense	—	4,078			4,078
Ending Balance	<u>\$ 71,418</u>	<u>\$ 2,205,402</u>	<u>\$ 521,530</u>	<u>\$ (47,351)</u>	<u>\$ 2,750,999</u>

<sup>(1)</sup> Refer to Note 1, Basis of Presentation and Significant Accounting Policies, Note 6, Other Real Estate Owned and Repossessed Assets and Note 20, Accumulated Other Comprehensive Loss for further details on the changes in accounting policy.

See accompanying notes to Consolidated Financial Statements (unaudited).



**Chemical Financial Corporation**  
**Consolidated Statements of Cash Flows**  
(Unaudited)

<b>(Dollars in thousands)</b>	<b>Six Months Ended June 30,</b>	
	<b>2019</b>	<b>2018</b>
<b>Cash flows from operating activities</b>		
Net income	\$ 132,536	\$ 140,584
Adjustments to reconcile net income to net cash provided by operating activities:		
Provision for loan losses	9,561	15,828
Gains on sales of loans	(11,538)	(5,531)
Proceeds from sales of loans	392,730	392,570
Valuation change in loans held-for-sale	1,730	216
Loans originated for sale, net of repayments	(330,969)	(379,584)
Net gains on sale of investment securities	(4,247)	(3)
Net (gains) losses from sales/writedowns of other real estate and repossessed assets	(807)	98
Depreciation of premises and equipment	8,527	8,384
Amortization of intangible assets	2,721	2,864
Additions to loan servicing rights	(4,242)	(4,251)
Valuation change in loan servicing rights	14,597	(2,272)
Net amortization of premiums and discounts on investment securities	12,744	9,123
Share-based compensation expense	5,129	4,078
Deferred income tax expense	3,783	4,473
Change in deferred tax valuation allowance	—	(72)
Net increase in interest receivable and other assets	(126,406)	(15,498)
Net increase (decrease) in interest payable and other liabilities	101,202	(5,671)
Net cash provided by operating activities	<u>207,051</u>	<u>165,336</u>
<b>Cash flows from investing activities</b>		
Investment securities - carried at fair value		
Proceeds from maturities, calls and principal reductions	338,123	157,185
Proceeds from sales and redemptions	205,331	4,215
Purchases	(772,263)	(775,497)
Investment securities – held-to-maturity:		
Proceeds from maturities, calls and principal reductions	1,880	85,027
Purchases	(1,549)	(11,240)
Net increase in loans	(602,373)	(439,390)
Proceeds from sales of other real estate and repossessed assets	5,311	7,646
Purchases of premises and equipment, net of disposals	(8,793)	(7,458)
Proceeds from returns of investment in equity method investments	162	269
Net cash used in investing activities	<u>(834,171)</u>	<u>(979,243)</u>
<b>Cash flows from financing activities</b>		
Net increase in interest- and noninterest-bearing demand deposits and savings accounts	388	247,254
Net increase in time deposits	285,766	661,479
Net increase in collateralized customer deposits and other short-term borrowings	488,984	58,702
Repayment of long-term borrowings	—	(42,000)
Cash dividends paid	(48,973)	(40,137)
Proceeds from directors' stock plans and exercise of stock options, net of shares withheld	520	2,558
Cash paid for payroll taxes upon conversion of share-based awards	(2,646)	(4,660)
Net cash provided by financing activities	<u>724,039</u>	<u>883,196</u>
Net increase in cash and cash equivalents	96,919	69,289
Cash and cash equivalents at beginning of period	495,839	455,991
Cash and cash equivalents at end of period	<u>\$ 592,758</u>	<u>\$ 525,280</u>
<b>Supplemental disclosures of cash flow information:</b>		
Interest paid	\$ 107,783	\$ 56,575
Net income tax (refunds) payments	(4,709)	4,599
Non-cash activities:		
Loans transferred to other real estate and repossessed assets	6,729	5,093
Net transfer of loans held-for-sale to (from) loans held-for-investment	58	(2,171)

See accompanying notes to Consolidated Financial Statements (unaudited).

**Chemical Financial Corporation**  
**Notes to Consolidated Financial Statements (Unaudited)**  
**June 30, 2019**

**Note 1: Basis of Presentation and Significant Accounting Policies**

**Nature of Operations**

Chemical Financial Corporation ("Corporation" or "Chemical") operates in a single operating segment — commercial banking. The Corporation is a financial holding company, headquartered in Detroit, Michigan, that operates through one commercial bank, Chemical Bank. Chemical Bank operates within Michigan, Ohio and Northern Indiana as a Michigan state-chartered commercial bank. Chemical Bank operates through an internal organizational structure of six regional banking units and offers a full range of traditional banking and fiduciary products and services to the residents and business customers in the Corporation's geographical market areas. The products and services offered by the regional banking units, through branch banking offices, are generally consistent throughout the Corporation, as is the pricing of those products and services. The marketing of products and services throughout the Corporation's regional banking units is generally uniform, as many of the markets served by the regional banking units overlap. The distribution of products and services is generally uniform throughout the Corporation's regional banking units and is achieved primarily through retail branch banking offices, automated teller machines and electronically accessed banking products.

The Corporation's primary sources of revenue are interest from its loan products and investment securities, service charges and fees from customer deposit accounts, wealth management revenue and net gain on sale of loans and other mortgage banking revenue.

**Basis of Presentation and Principles of Consolidation**

The accompanying unaudited Consolidated Financial Statements of the Corporation and its subsidiaries have been prepared in accordance with United States ("U.S.") generally accepted accounting principles ("GAAP") for interim financial information and with instructions to Form 10-Q, Securities and Exchange Commission ("SEC") rules and interpretive releases and prevailing practices within the banking industry and Rule 10-01 of Regulation S-X. Accordingly, the interim Consolidated Financial Statements do not include all of the information and footnotes required by GAAP for complete financial statements and should be read in conjunction with the Corporation's Consolidated Financial Statements and footnotes thereto included in the Corporation's Annual Report on Form 10-K for the year ended December 31, 2018. In the opinion of management, the accompanying unaudited interim Consolidated Financial Statements contain all adjustments believed necessary to present fairly the financial condition and results of operations of the Corporation for the periods presented. All significant income and expenses are recorded on the accrual basis. Intercompany accounts and transactions have been eliminated in preparing the Consolidated Financial Statements. Operating results for the six months ended June 30, 2019 are not necessarily indicative of the results that may be expected for the year ending December 31, 2019.

**Pending Merger with TCF Financial Corporation**

Chemical and TCF Financial Corporation ("TCF") have entered into an Agreement and Plan of Merger, dated as of January 27, 2019, which we refer to as the merger agreement. Under the merger agreement, Chemical and TCF have agreed to combine their respective companies in a merger of equals, pursuant to which TCF will merge with and into Chemical, with Chemical continuing as the surviving entity, in a transaction we refer to as the merger. Immediately following the merger or at such later time as the parties may mutually agree, Chemical Bank will merge with and into TCF National Bank, with TCF National Bank as the surviving bank, in a transaction we refer to as the bank merger. The merger has received all necessary regulatory approvals in addition to approvals from the shareholders of both companies. The pending transaction is anticipated to close on August 1, 2019, subject to satisfaction of customary closing conditions. The transaction is discussed in more detail in Note 2.

**Use of Estimates**

Management makes estimates and assumptions that affect the amounts reported in the Consolidated Financial Statements and accompanying footnotes. Estimates that are particularly susceptible to significant change include the determination of the allowance for loan losses, expected cash flows from acquired loans, income taxes and the valuation of loan servicing rights. Actual results could differ from these estimates.

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**Reclassifications**

Certain amounts appearing in the Consolidated Financial Statements and notes thereto for prior periods have been reclassified to conform to the current presentation. The reclassification had no effect on net income or shareholders' equity as previously reported, except in case of the cumulative effect adjustment of change in accounting policy as noted.

**Recently Adopted Accounting Principles**

Standard	Description	Adoption Date	Effect on the financial statements
ASU No. 2014-09 - Revenue from Contracts with Customers (Topic 606)	The core principle of the Updates to Topic 606 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. The standard is intended to clarify and converge the revenue recognition principles under GAAP and International Financial Reporting Standards and to streamline revenue recognition requirements in addition to expanding required revenue recognition disclosures.	January 1, 2018 under the modified retrospective method	A large majority of the Corporation's revenue is derived from net interest income, which is excluded from the scope of the guidance. Following detailed review of the Corporation's revenue streams not derived from net interest income on financial assets and liabilities, management identified the recognition of gains from other real estate sales financed by the Corporation to be in the scope of this amended guidance. Effective January 1, 2018, revenue for new seller financed other real estate owned sales is determined according to the Updates to Topic 606. If all qualifications are met, gains associated with the sales are recognized into income at the time of closing and therefore not deferred. The cumulative effect of the Updates to Topic 606 increased retained earnings by \$1.2 million upon adoption. Additional required disclosures have been included in Note 15, Revenue from Contracts with Customers. The adoption is not expected to have a material impact on the Corporation's net income on an ongoing basis. Refer to Note 6, Other Real Estate Owned and Repossessed Assets, for further detail.
ASU No. 2016-08 - Principal versus Agent Considerations			
ASU No. 2016-10 - Identifying Performance Obligations and Licensing			
ASU No. 2016-12 - Narrow-scope Improvements and Practical Expedients ("Updates to Topic 606")			
ASU No. 2016-01 - Financial Instruments - Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities ("ASU 2016-01")	ASU 2016-01 amended current guidance by: (i) requiring equity investments with readily determinable fair values to be measured at fair value with changes in fair value recognized in net income, (ii) allowing an entity to measure equity investments that do not have readily determinable fair values at either fair value or cost minus impairment, changes in measurement is recognized in net income, (iii) simplifying impairment assessment of equity investments without readily determinable fair values by requiring a qualitative assessment to identify impairment, (iv) eliminating the requirement to disclose the methods and assumptions used to estimate the fair value of financial instruments measured at amortized cost; (v) requiring the use of exit price notion when measuring the fair value of financial instruments; (vi) requiring recognition of changes in the fair value related to instrument-specific credit risk in other comprehensive income if financial liabilities are measured at fair value, (vii) requiring separate presentation in financial statements by measurement category, and (viii) clarifying that an entity should evaluate the need for valuation allowance on deferred tax assets related to available-for-sale securities in combination with the entity's other deferred tax assets.	January 1, 2018 using a modified retrospective approach with the exception of disclosure requirements which are adopted on a prospective basis	The Corporation identified available-for-sale investment securities qualifying as equity investments in the securities portfolio at January 1, 2018. The adoption resulted in recognizing the unrealized fair value related to the identified equity investments as a cumulative effect to retained earnings of \$0.3 million. In addition, the Corporation has updated disclosures related to the fair value of financial instruments to the use of the exit price notion.

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<b>Standard</b>	<b>Description</b>	<b>Adoption Date</b>	<b>Effect on the financial statements</b>
ASU No. 2016-15, Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts as Cash Payments ("ASU 2016-15")	ASU 2016-15 was issued to reduce diversity in practice and prevent financial statement restatements by clarifying the presentation and classification of cash receipts and cash payments within the statement of cash flows. Cash flow issues include: debt prepayment or debt extinguishment costs, settlement of insurance claims, proceeds from the settlement of corporate-owned and bank-owned life insurance policies, distribution received from equity method investees, beneficial interests in securitization transactions and separately identifiable cash flows and application of the predominance principle.	January 1, 2018 using retrospective application	The adoption did not have a material effect on the presentation of our Consolidated Statements of Cash Flows, as current policies are either already in-line with the clarifications in the updated guidance, or the related cash flows are not material.
ASU No. 2017-07 - Compensation - Retirement Benefits (Topic 715): Improving the Presentation of Net Periodic Pension Cost ("ASU 2017-07")	ASU 2017-07 improves the income statement presentation of net periodic benefit cost for an entity's pension and postretirement plans. The standard requires employers to disaggregate current service costs from other components of net benefit cost and present it with other compensation cost. Additionally net benefit cost becomes eligible for capitalization.	January 1, 2018 using the retrospective transition method	The adoption did not have a material effect on the Consolidated Statements of Income during the year ended December 31, 2018.
ASU No. 2017-12, Derivatives and Hedging (Topic 815): Targeted Improvement to Account for Hedging Activities ("ASU 2017-12")	ASU 2017-12 eliminates the separate measurement of hedge ineffectiveness as well as the benchmark interest rate concept when applying hedge risk to variable-rate instruments. It also allows a company to elect to perform subsequent effectiveness assessments qualitatively if the initial quantitative hedge effectiveness assessment is found to be highly effective.	January 1, 2018 with a cumulative effect adjustment	The early adoption resulted in a cumulative adjustment from opening retained earnings to accumulated other comprehensive income of \$3 thousand, which represented all previously recognized hedge ineffectiveness.
ASU No. 2018-15 - Intangible-Goodwill and Other-Internal-Use Software (Subtopic 350-40): Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract ("ASU 2018-15")	ASU 2018-15 clarifies the accounting treatment for implementation costs for hosting arrangements that are service contracts. The amendments in this update align the requirements for capitalizing implementation costs incurred in a hosting arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal use software in accordance with subtopic 350-40. Under this guidance costs for implementation activities during the development stage shall be capitalized. The said capitalized-costs shall be expensed over the term of the hosting arrangement.	Third quarter of 2018 applied retrospectively	The early adoption in the third quarter of 2018 did not have a material effect on the Consolidated Financial Statements.

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Standard	Description	Adoption Date	Effect on the financial statements
ASU No. 2016-02 - Leases (Topic 842)	In February 2016, the FASB established Topic 842, Leases, by issuing Accounting Standards Update (ASU), No. 2016-02, which requires lessees to recognize leases on-balance sheet, lessors to classify leases as sales-type, direct financing, or operating, and disclose key information about leasing arrangements. Topic 842 was subsequently amended by ASU No. 2018-01, Land Easement Practical Expedient for Transition to Topic 842; ASU No. 2018-10, Codification Improvements to Topic 842, Leases; ASU No. 2018-11, Targeted Improvements; ASU No. 2018-20, Narrow Scope Improvements for Lessors; and ASU No. 2019-01, Leases (Topic 842): Codification Improvements.	January 1, 2019	Upon adoption as of January 1, 2019, the Corporation elected certain practical expedients offered through the guidance, including foregoing the restatement of comparative periods, the use of hindsight, and the 'package of practical expedients' whereby it did not reassess (i) whether any expired or existing contracts contain leases, (ii) the lease classification for any expired or existing leases and (iii) initial direct costs for any existing leases.
ASU No. 2018-01 - Leases (Topic 842): Land Easement Practical Expedient for Transition to Topic 842			
ASU No. 2018-10 - Codification Improvements to Topic 842, Leases	This guidance provides that lessees will be required to recognize the following for all operating leases (with the exception of short-term leases): 1) a lease liability, which is the present value of a lessee's obligation to make lease payments, and 2) a right-of-use (ROU) 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. Lessor accounting under the new guidance remains largely unchanged as it is substantially equivalent to existing guidance for sales-type leases, direct financing leases and operating leases.		In conjunction with the adoption, the Corporation elected to not recognize on its balance sheet, assets or liabilities related to short-term leases.
ASU No. 2018-11 - Leases (Topic 842): Targeted Improvements			
ASU No. 2018-20 - Leases (Topic 842): Narrow Scope Improvements for Lessors	Upon adoption, a modified retrospective transition approach is required, applying the new standard to all leases existing at the date of initial application.		The adoption had a material impact on the Consolidated Statements of Financial Position, but did not have a material impact on the Consolidated Statements of Income or Consolidated Statements of Cash Flows. At adoption on January 1, 2019, the Corporation recognized an operating lease ROU asset of \$37.2 million and an operating lease liability of \$38.2 million. Refer to Note 11, Leases, for further detail.
ASU No. 2019-01 - Leases (Topic 842): Codification Improvements			

Effective during the six months ended 2019, the Corporation also adopted the following standards, none of which had a material impact to the Corporation's financial statements or financial statement disclosures:

Standard	Effective Date
2017-06 Plan Accounting: Defined Benefit Pension Plans (Topic 960)	January 1, 2019
2018-07 Compensation - Stock Compensation (Topic 718)	January 1, 2019
2018-08 Clarifying the Scope and the Accounting Guidance for Contributions Received and Contributions Made	January 1, 2019
2018-09 Codification Improvements	January 1, 2019
2018-16 Derivatives and Hedging (Topic 815): Inclusion of the Secured Overnight Financing Rate (SOFR) Overnight Index Swap (OIS) Rate as a Benchmark Interest Rate for Hedge Accounting Purposes	January 1, 2019

**Note 2: Mergers and Acquisitions**

**Pending Merger with TCF Financial Corporation**

On January 27, 2019, Chemical entered into the merger agreement with TCF under which the companies will combine in an all-stock merger of equals transaction. Under the terms of the merger agreement, which was unanimously approved by the boards of directors of both companies, TCF will merge with and into Chemical. Immediately following the merger, Chemical Bank will merge with and into TCF National Bank, with TCF National Bank as the surviving bank. The combined holding company and bank will operate under the TCF name and brand following the closing of the transaction. TCF is headquartered in Wayzata, Minnesota with reported assets of approximately \$24.4 billion as of March 31, 2019. On June 7, 2019, Chemical and TCF received shareholder approval and subsequently received all necessary regulatory approvals to complete the merger.

Under the terms of the merger agreement, TCF shareholders will receive 0.5081 shares of Chemical common stock for each share of TCF common stock based on a fixed exchange ratio, equivalent to \$21.58 per TCF share based on the closing price as of January 25, 2019. Each outstanding share of 5.70% Series C Non-Cumulative Perpetual Preferred Stock of TCF will be converted into the right to receive one share of a newly created series of preferred stock of Chemical. Once the merger is completed, Chemical will be renamed and operate as TCF Financial Corporation and will trade on NASDAQ under the ticker symbol "TCF". The merger is expected to close on August 1, 2019, subject to satisfaction of customary closing conditions.

### **Note 3: Fair Value Measurements**

Fair value, as defined by GAAP, is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. A fair value measurement assumes that the transaction to sell the asset or transfer the liability occurs in the principal market for the asset or liability or, in the absence of a principal market, the most advantageous market for the asset or liability. The price in the principal (or most advantageous) market used to measure the fair value of the asset or liability is not adjusted for transaction costs. An orderly transaction is a transaction that assumes exposure to the market for a period prior to the measurement date to allow for market activities that are usual and customary for transactions involving such assets and liabilities; it is not a forced transaction. Market participants are buyers and sellers in the principal market that are (i) independent, (ii) knowledgeable, (iii) able to transact and (iv) willing to transact.

The Corporation utilizes fair value measurements to record fair value adjustments to certain assets and liabilities and to determine fair value disclosures. Investment securities — carried at fair value, loans held-for-sale, loan servicing rights ("LSRs") and derivatives are recorded at fair value on a recurring basis. Additionally, the Corporation may be required to record other assets, such as impaired loans, goodwill, other intangible assets, other real estate and repossessed assets, at fair value on a nonrecurring basis. These nonrecurring fair value adjustments typically involve the application of lower of cost or market accounting or write-downs of individual assets.

The Corporation determines the fair value of its financial instruments based on a three-level hierarchy established by GAAP. The classification and disclosure of assets and liabilities within the hierarchy is based on whether the inputs to the valuation methodology used for measurement are observable or unobservable. Observable inputs reflect market-derived or market-based information obtained from independent sources, while unobservable inputs reflect management's estimates about market data. The three levels of inputs that may be used to measure fair value within the GAAP hierarchy are as follows:

- Level 1 Valuation is based upon quoted prices for identical instruments traded in active markets.
- Level 2 Valuation is based upon quoted prices for similar instruments in active markets, quoted prices for identical or similar instruments in markets that are not active, and model-based valuation techniques for which all significant assumptions are observable in the market. Level 2 valuations for the Corporation include government and government-sponsored enterprise debt obligations, including securities issued by the Federal Home Loan Bank ("FHLB"), Federal Home Loan Mortgage Corporation, Federal National Mortgage Association, Federal Farm Credit Bank, Student Loan Marketing Corporation and the Small Business Administration, securities issued by certain state and political subdivisions, residential mortgage-backed securities, collateralized mortgage obligations, corporate bonds and available-for-sale trust preferred securities. Valuations are obtained from a third-party pricing service for these investment securities. Additionally included in Level 2 valuations are loans held for sale and derivative assets and liabilities.
- Level 3 Valuation is generated from model-based techniques that use at least one significant assumption not observable in the market. These unobservable assumptions reflect estimates of assumptions that market participants would use in pricing the asset or liability. Valuation techniques include use of option pricing models, discounted cash flow models, yield curves and similar techniques. The determination of fair value requires management judgment or estimation and generally is corroborated by external data, which includes third-party pricing services. Level 3 valuations for the Corporation include impaired loans, goodwill, core deposit intangible assets, LSRs and other real estate and repossessed assets.

A description of the valuation methodologies used for instruments measured at fair value, as well as the general classification of such instruments pursuant to the valuation hierarchy, is set forth below. These valuation methodologies were applied to all of the Corporation's financial assets and financial liabilities carried at fair value and all financial instruments disclosed at fair value. Transfers of assets or liabilities between levels of the fair value hierarchy are recognized at the beginning of the reporting period, when applicable.

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In general, fair value is based upon quoted market prices, where available. If quoted market prices are not available, fair value is based upon third-party pricing services when available. Fair value may also be based on internally developed models that primarily use, as inputs, observable market-based parameters. Valuation adjustments may be required to record financial instruments at fair value. Any such valuation adjustments are applied consistently over time. The Corporation's valuation methodologies may produce a fair value calculation that may not be indicative of net realizable value or reflective of future fair values.

While management believes the Corporation's valuation methodologies are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different estimate of fair value at the reporting date. Furthermore, the fair value amounts may change significantly after the date of the statement of financial position from the amounts reported in the Consolidated Financial Statements and related notes.

**Assets and Liabilities Recorded at Fair Value on a Recurring Basis**

Investment securities: Investment securities are recorded at fair value on a recurring basis with the exception of those classified as held-to-maturity. Fair value measurement is based upon quoted prices, if available. If quoted prices are not available, fair values are generally measured using independent pricing models or other model-based valuation techniques that include market inputs, such as benchmark yields, reported trades, broker dealer quotes, issuer spreads, two-sided markets, benchmark securities, bids, offers, reference data and industry and economic events.

Loans held-for-sale: The Corporation elected the fair value option for all loans held-for-sale. Accordingly, loans held-for-sale are recorded at fair value on a recurring basis. The fair values of loans held-for-sale are based on the market price for similar loans sold in the secondary market, and therefore, are classified as Level 2 valuations.

Loan servicing rights: The Corporation has elected to account for all LSRs under the fair value measurement method. A third party valuation model is used to determine the fair value at the end of each reporting period utilizing a discounted cash flow analysis using interest rates and prepayment speed assumptions currently quoted for comparable instruments and a discount rate determined by management. Because of the nature of the valuation inputs, the Corporation classifies loan servicing rights as Level 3. Refer to Note 8, Loan Servicing Rights, for the assumptions included in the valuation of loan servicing rights.

Derivatives: The Corporation enters into interest rate lock commitments with prospective borrowers to be sold into the secondary market and forward commitments for the future delivery of mortgage loans to third party investors, which are carried at fair value on a recurring basis. The fair value of these commitments is based on the fair value of related mortgage loans determined using observable market data. Interest rate lock commitments are adjusted for expectations of exercise and funding. This adjustment is not considered to be a material input. The Corporation classifies interest rate lock commitments and forward contracts related to mortgage loans to be delivered for sale as recurring Level 2.

Derivative instruments held or issued for risk management or customer-initiated activities are traded in over-the-counter markets where quoted market prices are not readily available. Fair value for over-the-counter derivative instruments is measured on a recurring basis using third party models that use primarily market observable inputs, such as yield curves and option volatilities. The fair value for these derivatives may include a credit valuation adjustment that is determined by applying a credit spread for the counterparty or the Corporation, as appropriate, to the total expected exposure of the derivative after considering collateral and other master netting arrangements. These adjustments, which are considered Level 3 inputs, are based on estimates of current credit spreads to evaluate the likelihood of default. The Corporation assessed the significance of the impact of the credit valuation adjustments on the overall valuation of its derivative positions at both June 30, 2019 and December 31, 2018 and it was determined that the credit valuation adjustments were not significant to the overall valuation of its derivatives. As a result, the Corporation classifies its risk management interest rate swaps designated as cash flow hedges and customer-initiated derivatives valuations in Level 2 of the fair value hierarchy.

Written and purchased option derivatives consist of instruments to facilitate an equity-linked time deposit product (the "Power Equity CD"). The Power Equity CD is a time deposit that provides the purchaser a guaranteed return of principal at maturity plus a potential equity return, while the Corporation receives a known stream of funds based on equity returns. The written and purchased options are mirror derivative instruments which are carried at fair value on the Consolidated Statements of Financial Position. Fair value measurements for the Power Equity CD are determined using quoted prices of underlying stocks, along with other terms and features of the derivative instrument. As a result, the Power Equity CD derivatives are classified as Level 2 valuations.

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**Disclosure of Recurring Basis Fair Value Measurements**

For assets and liabilities measured at fair value on a recurring basis, quantitative disclosures about the fair value measurements for each major category of assets and liabilities follow:

<b>(Dollars in thousands)</b>	<b>Quoted Prices In Active Markets for Identical Assets (Level 1)</b>	<b>Significant Other Observable Inputs (Level 2)</b>	<b>Significant Unobservable Inputs (Level 3)</b>	<b>Total</b>
<b>June 30, 2019</b>				
Investment securities – carried at fair value:				
Government and government-sponsored enterprises	\$ —	\$ 295,726	\$ —	\$ 295,726
State and political subdivisions	—	444,085	—	444,085
Residential mortgage-backed securities	—	353,622	—	353,622
Collateralized mortgage obligations	—	1,939,695	—	1,939,695
Corporate bonds	—	289,312	—	289,312
Trust preferred securities	—	47,432	—	47,432
Total investment securities – carried at fair value	—	3,369,872	—	3,369,872
Loans held-for-sale	—	33,019	—	33,019
Loan servicing rights	—	—	60,658	60,658
Derivative assets:				
Customer-initiated derivatives	—	69,024	—	69,024
Interest rate lock commitments	—	2,687	—	2,687
Power Equity CD	—	751	—	751
Risk management derivatives	—	606	—	606
Total derivatives	—	73,068	—	73,068
Total assets at fair value	<u>\$ —</u>	<u>\$ 3,475,959</u>	<u>\$ 60,658</u>	<u>\$ 3,536,617</u>
Derivative liabilities:				
Customer-initiated derivatives	—	70,707	—	70,707
Forward contracts related to mortgage loans to be delivered for sale	—	661	—	661
Power Equity CD	—	751	—	751
Risk management derivatives	—	25,060	—	25,060
Total derivatives	—	97,179	—	97,179
Total liabilities at fair value	<u>\$ —</u>	<u>\$ 97,179</u>	<u>\$ —</u>	<u>\$ 97,179</u>



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(Dollars in thousands)	Quoted Prices In Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total
<b>December 31, 2018</b>				
Investment securities – carried at fair value:				
Government and government-sponsored enterprises	\$ —	\$ 351,700	\$ —	\$ 351,700
State and political subdivisions	—	516,286	—	516,286
Residential mortgage-backed securities	—	213,428	—	213,428
Collateralized mortgage obligations	—	1,601,298	—	1,601,298
Corporate bonds	—	293,063	—	293,063
Trust preferred securities	—	46,057	—	46,057
Total investment securities – carried at fair value	—	3,021,832	—	3,021,832
Loans held-for-sale	—	85,030	—	85,030
Loan servicing rights	—	—	71,013	71,013
Derivative assets:				
Customer-initiated derivatives	—	26,680	—	26,680
Interest rate lock commitments	—	1,049	—	1,049
Power Equity CD	—	718	—	718
Risk management derivatives	—	10,148	—	10,148
Total derivatives	—	38,595	—	38,595
Total assets at fair value	\$ —	\$ 3,145,457	\$ 71,013	\$ 3,216,470
Derivative liabilities:				
Customer-initiated derivatives	\$ —	\$ 27,664	\$ —	\$ 27,664
Forward contracts related to mortgage loans to be delivered for sale	—	719	—	719
Power Equity CD	—	718	—	718
Risk management derivatives	—	3,278	—	3,278
Total derivatives	—	32,379	—	32,379
Total liabilities at fair value	\$ —	\$ 32,379	\$ —	\$ 32,379

There were no transfers between levels within the fair value hierarchy during the six months ended June 30, 2019 and 2018.

The following table summarizes the changes in Level 3 assets measured at fair value on a recurring basis.

(Dollars in thousands)	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
<b>Loan servicing rights</b>				
<b>Balance, beginning of period</b>	<b>\$ 64,701</b>	<b>\$ 68,837</b>	<b>\$ 71,013</b>	<b>\$ 63,841</b>
Gains (losses):				
Recorded in earnings (realized):				
Recorded in "Net gain on sale of loans and other mortgage banking revenue"	(6,152)	(757)	(14,597)	2,272
New originations	2,109	2,284	4,242	4,251
<b>Balance, end of period</b>	<b>\$ 60,658</b>	<b>\$ 70,364</b>	<b>\$ 60,658</b>	<b>\$ 70,364</b>

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The Corporation has elected the fair value option for loans held-for-sale. These loans are intended for sale and the Corporation believes that the fair value is the best indicator of the resolution of these loans. Interest income is recorded based on the contractual terms of the loans in accordance with the Corporation's policy on loans held for investment in "Interest and fees on loans" in the Consolidated Statements of Income. There were no loans held-for-sale on nonaccrual status or 90 days past due and on accrual status as of June 30, 2019 and December 31, 2018.

The aggregate fair value, contractual balance (including accrued interest), and gain or loss for loans held-for-sale carried at fair value option was as follows:

(Dollars in thousands)	June 30, 2019	December 31, 2018
Aggregate fair value	\$ 33,019	\$ 85,030
Contractual balance	31,799	82,080
Unrealized gain	1,220	2,950

The total amount of gains from loans held-for-sale included in the Consolidated Statements of Income was as follows:

(Dollars in thousands)	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Interest income <sup>(1)</sup>	\$ 336	\$ 445	\$ 969	\$ 821
Change in fair value <sup>(2)</sup>	345	484	(1,730)	(216)
Net gain on sales of loans <sup>(2)</sup>	5,388	4,023	11,538	5,531
Total included in earnings	\$ 6,069	\$ 4,952	\$ 10,777	\$ 6,136

<sup>(1)</sup> Included in "Interest and fees on loans" in the Consolidated Statements of Income.

<sup>(2)</sup> Included in "Net gain on sale of loans and other mortgage banking revenue" in the Consolidated Statements of Income.

**Assets and Liabilities Recorded at Fair Value on a Nonrecurring Basis**

**Investment securities:** Investment securities classified as held-to-maturity are recorded at fair value if the value is below amortized cost and the Corporation has determined that such unrealized loss is an other-than-temporary impairment. Fair value measurement is based upon quoted prices, if available. If quoted prices are not available, fair values are generally measured using independent pricing models or other model-based valuation techniques that include market inputs, such as benchmark yields, reported trades, broker dealer quotes, issuer spreads, two-sided markets, benchmark securities, bids, offers, reference data and industry and economic events.

**Impaired Loans:** The Corporation does not record loans held for investment at fair value on a recurring basis. However, from time to time, a loan is considered impaired and an allocation of the allowance (valuation allowance) may be established or a portion of the loan is charged off. Loans for which it is probable that payment of interest and principal will not be made in accordance with the contractual terms of the loan agreement are considered impaired. The fair value of impaired loans is estimated using one of several methods, including the loan's observable market price, the fair value of the collateral or the present value of the expected future cash flows discounted at the loan's effective interest rate. Those impaired loans not requiring a valuation allowance represent loans for which the fair value of the expected repayments or collateral exceed the remaining carrying amount of such loans. Impaired loans where a valuation allowance is established or a portion of the loan is charged off based on the fair value of collateral are subject to nonrecurring fair value measurement and require classification in the fair value hierarchy. The Corporation records impaired loans as Level 3 valuations as there is generally no observable market price or management determines the fair value of the collateral is further impaired below the independent appraised value. When management determines the fair value of the collateral is further impaired below the appraised value, discounts ranging between 20% and 30% of the appraised value are used depending on the nature of the collateral and the age of the most recent appraisal.

**Goodwill:** Goodwill is subject to impairment testing on an annual basis. The assessment of goodwill for impairment requires a significant degree of judgment. In the event the assessment indicates that it is more-likely-than-not that the fair value is less than the carrying value, the asset is considered impaired and recorded at fair value. Goodwill that is impaired and subject to nonrecurring fair value measurements is a Level 3 valuation. At June 30, 2019 and December 31, 2018, no goodwill was impaired.

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**Core deposit intangibles:** Core deposit intangible assets are recorded at fair value when initially recorded. Subsequently, core deposit intangible assets are amortized primarily on an accelerated basis over periods ranging from ten to fifteen years and are subject to impairment testing whenever events or changes in circumstances indicate that the carrying amount exceeds the fair value of the asset. If core deposit intangible asset impairment is identified, the Corporation classifies the impaired core deposit intangible asset subject to nonrecurring fair value measurements as Level 3 valuations. At June 30, 2019 and December 31, 2018, there was no impairment identified for core deposit intangible assets.

**Other real estate owned and repossessed assets:** The carrying amounts for other real estate and repossessed assets are reported in the Consolidated Statements of Financial Position under "Interest receivable and other assets." Other real estate and repossessed assets include real estate and other types of assets repossessed by the Corporation. Other real estate and repossessed assets are recorded at the lower of cost or fair value upon the transfer of a loan to other real estate and repossessed assets and, subsequently, continue to be measured and carried at the lower of cost or fair value. Fair value is based upon independent market prices, appraised values of the property or management's estimation of the value of the property. The Corporation records other real estate and repossessed assets as Level 3 valuations as management generally determines that the fair value of the property is impaired below the appraised value. When management determines the fair value of the property is further impaired below appraised value, discounts ranging between 20% and 30% of the appraised value are used depending on the nature of the property and the age of the most recent appraisal.

**Disclosure of Nonrecurring Basis Fair Value Measurements**

Certain assets may be required to be measured at fair value on a nonrecurring basis. The carrying value of these assets represent end of period values, which approximate the fair value measurements that occurred on the various measurement dates during the period. For assets measured at fair value on a nonrecurring basis, quantitative disclosures about fair value measurements for each major category of assets follow:

(Dollars in thousands)	Significant Unobservable Inputs (Level 3)	
<b>June 30, 2019</b>		
Impaired loans	\$	76,186
Other real estate and repossessed assets		3,463
Total	\$	79,649
<b>December 31, 2018</b>		
Impaired loans	\$	63,247
Other real estate and repossessed assets		883
Total	\$	64,130

There were no liabilities recorded at fair value on a nonrecurring basis at either June 30, 2019 or December 31, 2018.

The following table presents additional information about the significant unobservable inputs used in the fair value measurement of financial assets measured on a nonrecurring basis that were categorized within the Level 3 of the fair value hierarchy:

(Dollars in thousands)	Fair Value at June 30, 2019	Valuation Technique	Significant Unobservable Inputs	Range
Impaired loans	\$ 76,186	Appraisal of collateral	Discount for type of collateral and age of appraisal	20%-30%
Other real estate and repossessed assets	3,463	Appraisal of property	Discount for type of property and age of appraisal	20%-30%

**Disclosures About Fair Value of Financial Instruments**

GAAP requires disclosures about the estimated fair value of the Corporation's financial instruments, including those financial assets and liabilities that are not measured and reported at fair value on a recurring or nonrecurring basis. The Corporation utilized the fair value hierarchy in computing the fair values of its financial instruments. In cases where quoted market prices were not available, the Corporation employed the exit-price notion, using unobservable inputs requiring management's judgment to estimate the fair values of its financial instruments, which is considered a Level 3 valuation. This Level 3 valuation is affected by

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the assumptions made and, accordingly, is not necessarily indicative of amounts that would be realized in a current market exchange. It is also the Corporation's general practice and intent to hold the majority of its financial instruments until maturity and, therefore, the Corporation does not expect to realize the estimated amounts disclosed.

A summary of carrying amounts and estimated fair values of the Corporation's financial instruments not recorded at fair value in their entirety on a recurring basis on the Consolidated Statements of Financial Position are disclosed in the table below.

(Dollars in thousands)	Level in Fair Value Measurement Hierarchy	June 30, 2019		December 31, 2018	
		Carrying Amount	Fair Value	Carrying Amount	Fair Value
Financial assets:					
Investment securities:					
Held-to-maturity	Level 2	\$ 565,546	\$ 575,042	\$ 623,599	\$ 618,232
Held-to-maturity	Level 3	500	460	500	440
Net loans <sup>(1)</sup>	Level 3	15,745,936	15,717,256	15,159,795	14,907,789
Financial liabilities:					
Time deposits	Level 2	\$ 4,360,014	\$ 4,354,554	\$ 4,074,248	\$ 4,041,212
Collateralized customer deposits	Level 2	291,671	291,513	382,687	382,370
Short-term borrowings	Level 2	2,615,000	2,614,777	2,035,000	2,034,719
Long-term borrowings	Level 2	426,069	431,043	426,002	423,258

<sup>(1)</sup> Included \$76.2 million and \$63.2 million of impaired loans recorded at fair value on a nonrecurring basis at June 30, 2019 and December 31, 2018, respectively.

The short-term nature of certain assets and liabilities result in their carrying value approximating fair value. These include cash and cash equivalents, nonmarketable equity securities, interest receivable, bank owned life insurance, deposits without defined maturities and interest payable.

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**Note 4: Investment Securities**

The following is a summary of the amortized cost and fair value of investment securities carried at fair value and investment securities held-to-maturity at June 30, 2019 and December 31, 2018:

(Dollars in thousands)	Investment Securities Carried at Fair Value			
	Amortized Cost	Unrealized Gains	Unrealized Losses	Fair Value
<b>June 30, 2019</b>				
<u>Debt securities</u>				
Government and government-sponsored enterprises	\$ 297,284	\$ 378	\$ 1,936	\$ 295,726
State and political subdivisions	428,365	15,845	125	444,085
Residential mortgage-backed securities	351,790	2,807	975	353,622
Collateralized mortgage obligations	1,930,699	14,869	5,873	1,939,695
Corporate bonds	291,869	1,337	3,894	289,312
Trust preferred securities	47,672	502	742	47,432
Total	\$ 3,347,679	\$ 35,738	\$ 13,545	\$ 3,369,872
<b>December 31, 2018</b>				
<u>Debt securities</u>				
Government and government-sponsored enterprises	\$ 354,342	\$ 713	\$ 3,355	\$ 351,700
State and political subdivisions	523,178	1,141	8,033	516,286
Residential mortgage-backed securities	216,990	261	3,823	213,428
Collateralized mortgage obligations	1,623,415	2,903	25,020	1,601,298
Corporate bonds	304,243	259	11,439	293,063
Trust preferred securities	47,477	324	1,744	46,057
Total	\$ 3,069,645	\$ 5,601	\$ 53,414	\$ 3,021,832

(Dollars in thousands)	Investment Securities Held-to-Maturity			
	Amortized Cost	Unrealized Gains	Unrealized Losses	Fair Value
<b>June 30, 2019</b>				
State and political subdivisions	\$ 565,546	\$ 10,576	\$ 1,080	\$ 575,042
Trust preferred securities	500	—	40	460
Total	\$ 566,046	\$ 10,576	\$ 1,120	\$ 575,502
<b>December 31, 2018</b>				
State and political subdivisions	\$ 623,599	\$ 2,548	\$ 7,915	\$ 618,232
Trust preferred securities	500	—	60	440
Total	\$ 624,099	\$ 2,548	\$ 7,975	\$ 618,672

Investment securities are classified at the time they are acquired as either available-for-sale, held-to-maturity or carried at fair value based upon various factors, including asset/liability management strategies, liquidity and profitability objectives and regulatory requirements. Debt securities classified as available-for-sale are recorded at fair value. Investment securities carried at fair value may be sold prior to maturity based upon asset/liability management decisions. Unrealized gains or losses on available-for-sale debt securities are recorded as part of accumulated other comprehensive income in stockholders' equity. Held-to-maturity securities are carried at amortized cost, adjusted for amortization of premiums or accretion of discounts.

The majority of the Corporation's residential mortgage-backed securities and collateralized mortgage obligations are backed by a U.S. government agency (Government National Mortgage Association) or a government sponsored enterprise (Federal Home Loan Mortgage Corporation or Federal National Mortgage Association).

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Proceeds from sales of investment securities carried at fair value and the associated gains and losses recorded in earnings are listed below:

(Dollars in thousands)	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Proceeds	\$ 133,829	\$ 4,215	\$ 205,331	\$ 4,215
Gross gains	4,180	42	4,732	42
Gross losses	(20)	(39)	(485)	(39)

The following is a summary of the amortized cost and fair value of investment securities at June 30, 2019, by maturity, for both carried at fair value and held-to-maturity. The maturities of residential mortgage-backed securities and collateralized mortgage obligations are based on scheduled principal payments. The maturities of all other debt securities are based on final contractual maturity.

(Dollars in thousands)	June 30, 2019	
	Amortized Cost	Fair Value
<b>Investment Securities Carried at Fair Value:</b>		
Due in one year or less	\$ 779,977	\$ 784,061
Due after one year through five years	1,292,316	1,297,464
Due after five years through ten years	812,375	809,765
Due after ten years	463,011	478,582
Total	<u>\$ 3,347,679</u>	<u>\$ 3,369,872</u>
<b>Investment Securities Held-to-Maturity:</b>		
Due in one year or less	\$ 55,592	\$ 55,657
Due after one year through five years	207,221	209,710
Due after five years through ten years	138,384	142,283
Due after ten years	164,849	167,852
Total	<u>\$ 566,046</u>	<u>\$ 575,502</u>

Securities carried at fair value of \$897.0 million and \$1.05 billion were pledged at June 30, 2019 and December 31, 2018, respectively, to secure borrowings and deposits.

At June 30, 2019 and December 31, 2018, there were no holdings of securities of any one issuer, other than the U.S. government and its agencies, in an amount greater than 10% of shareholders' equity.

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The following schedule summarizes information for debt securities both carried at fair value and held-to-maturity with gross unrealized losses at June 30, 2019 and December 31, 2018, aggregated by category and length of time that individual securities have been in a continuous unrealized loss position. As of June 30, 2019, the Corporation's securities portfolio consisted of 1,912 securities, 512 of which were in an unrealized loss position.

(Dollars in thousands)	Less Than 12 Months		12 Months or More		Total	
	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses
<b>June 30, 2019</b>						
Government and government-sponsored enterprises	\$ 38,077	\$ 74	\$ 171,701	\$ 1,862	\$ 209,778	\$ 1,936
State and political subdivisions	10,105	15	242,873	1,190	252,978	1,205
Residential mortgage-backed securities	14,778	17	102,387	958	117,165	975
Collateralized mortgage obligations	229,853	1,684	464,641	4,189	694,494	5,873
Corporate bonds	52,131	269	113,659	3,625	165,790	3,894
Trust preferred securities	24,902	600	2,712	182	27,614	782
Total	\$ 369,846	\$ 2,659	\$ 1,097,973	\$ 12,006	\$ 1,467,819	\$ 14,665
<b>December 31, 2018</b>						
Government and government-sponsored enterprises	\$ 167,164	\$ 1,672	\$ 62,200	\$ 1,683	\$ 229,364	\$ 3,355
State and political subdivisions	190,551	1,932	657,327	14,016	847,878	15,948
Residential mortgage-backed securities	20,679	85	123,757	3,738	144,436	3,823
Collateralized mortgage obligations	496,356	5,268	656,208	19,752	1,152,564	25,020
Corporate bonds	169,431	5,888	103,688	5,551	273,119	11,439
Trust preferred securities	34,623	1,640	2,725	164	37,348	1,804
Total	\$ 1,078,804	\$ 16,485	\$ 1,605,905	\$ 44,904	\$ 2,684,709	\$ 61,389

An assessment is performed quarterly by the Corporation to determine whether unrealized losses in its debt securities portfolio are temporary or other-than-temporary by carefully considering all reasonably available information. The Corporation reviews factors such as financial statements, credit ratings, news releases and other pertinent information of the underlying issuer or company to make its determination. Management did not believe any individual unrealized loss on any debt security, as of June 30, 2019, represented an other-than-temporary impairment ("OTTI") as the unrealized losses for these securities resulted primarily from changes in benchmark U.S. Treasury interest rates and not credit issues. Management believed that the unrealized losses on debt securities at June 30, 2019 were temporary in nature and due primarily to changes in interest rates and reduced market liquidity and not as a result of credit-related issues.

At June 30, 2019, the Corporation did not have the intent to sell any of its impaired debt securities and believed that it was more-likely-than-not that the Corporation will not have to sell any such debt securities before a full recovery of amortized cost. Accordingly, at June 30, 2019, the Corporation believed the impairments in its debt securities portfolio were temporary in nature. However, there is no assurance that OTTI may not occur in the future.

**Note 5: Loans**

Loan portfolio segments are defined as the level at which an entity develops and documents a systematic methodology to determine its allowance. The Corporation has two loan portfolio segments (commercial loans and consumer loans) that it uses in determining the allowance. Both quantitative and qualitative factors are used by management at the loan portfolio segment level in determining the adequacy of the allowance for the Corporation. Classes of loans are a disaggregation of an entity's loan portfolio segments. Classes of loans are defined as a group of loans which share similar initial measurement attributes, risk characteristics, and methods for monitoring and assessing credit risk. The Corporation has six classes of loans, which are set forth below.

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Commercial — Loans and lines of credit to varying types of businesses, including municipalities, school districts and nonprofit organizations, for the purpose of supporting working capital, operational needs and term financing of equipment. Repayment of such loans is generally provided through operating cash flows of the business. Commercial loans are predominately secured by equipment, inventory, accounts receivable, personal guarantees of the owner and other sources of repayment, although the Corporation may also secure commercial loans with real estate.

Commercial real estate — Loans secured by real estate occupied by the borrower for ongoing operations (owner-occupied), non-owner occupied real estate leased to one or more tenants (non-owner occupied) and vacant land that has been acquired for investment or future land development (vacant land).

Real estate construction and land development — Real estate construction loans represent secured loans for the construction of business properties. Real estate construction loans often convert to a commercial real estate loan at the completion of the construction period. Land development loans represent secured development loans made to borrowers for the purpose of infrastructure improvements to vacant land to create finished marketable residential and commercial lots/land. Most land development loans are originated with the intention that the loans will be paid through the sale of developed lots/land by the developers within twelve months of the completion date. Land development loans at June 30, 2019 and December 31, 2018 were primarily comprised of loans to develop residential properties.

Residential mortgage — Loans secured by one- to four-family residential properties, generally with fixed interest rates for periods of fifteen years or less. The loan-to-value ratio at the time of origination is generally 80% or less. Residential mortgage loans with a loan-to-value ratio of more than 80% generally require private mortgage insurance.

Consumer installment — Loans to consumers primarily for the purpose of acquiring automobiles, recreational vehicles and watercraft and comprised primarily of indirect loans purchased from dealers. These loans generally consist of relatively small amounts that are spread across many individual borrowers.

Home equity — Loans and lines of credit whereby consumers utilize equity in their personal residence, generally through a second mortgage, as collateral to secure the loan.

Loans held-for-sale, comprised of fixed-rate residential mortgage and construction loans, were \$33.0 million at June 30, 2019 and \$85.0 million at December 31, 2018. The Corporation sold loans totaling \$196.9 million and \$392.7 million during the three and six months ended June 30, 2019, respectively, and \$202.1 million and \$392.6 million during the three and six months ended June 30, 2018, respectively.



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Commercial, commercial real estate, and real estate construction and land development loans are referred to as the Corporation's commercial loan portfolio, while residential mortgage, consumer installment and home equity loans are referred to as the Corporation's consumer loan portfolio. A summary of the Corporation's loans follows:

(Dollars in thousands)	Originated	Acquired <sup>(1)</sup>	Total Loans
<b>June 30, 2019</b>			
Commercial loan portfolio:			
Commercial	\$ 3,752,528	\$ 595,357	\$ 4,347,885
Commercial real estate:			
Owner-occupied	1,528,802	495,759	2,024,561
Non-owner occupied	2,056,531	716,146	2,772,677
Vacant land	37,155	12,807	49,962
Total commercial real estate	3,622,488	1,224,712	4,847,200
Real estate construction and land development	671,773	28,997	700,770
Subtotal	8,046,789	1,849,066	9,895,855
Consumer loan portfolio:			
Residential mortgage	2,722,019	944,594	3,666,613
Consumer installment	1,497,467	55,368	1,552,835
Home equity	604,835	141,765	746,600
Subtotal	4,824,321	1,141,727	5,966,048
Total loans <sup>(2)</sup>	<u>\$ 12,871,110</u>	<u>\$ 2,990,793</u>	<u>\$ 15,861,903</u>
<b>December 31, 2018</b>			
Commercial loan portfolio:			
Commercial	\$ 3,287,087	\$ 715,481	\$ 4,002,568
Commercial real estate:			
Owner-occupied	1,513,532	546,025	2,059,557
Non-owner occupied	1,966,330	818,690	2,785,020
Vacant land	40,295	27,215	67,510
Total commercial real estate	3,520,157	1,391,930	4,912,087
Real estate construction and land development	566,726	30,486	597,212
Subtotal	7,373,970	2,137,897	9,511,867
Consumer loan portfolio:			
Residential mortgage	2,407,305	1,051,361	3,458,666
Consumer installment	1,451,352	69,722	1,521,074
Home equity	612,129	166,043	778,172
Subtotal	4,470,786	1,287,126	5,757,912
Total loans <sup>(2)</sup>	<u>\$ 11,844,756</u>	<u>\$ 3,425,023</u>	<u>\$ 15,269,779</u>

<sup>(1)</sup> Loans acquired in the Talmer, Lake Michigan, Monarch, Northwestern and OAK acquisitions were elected to be accounted for under ASC 310-30, Loans and Debt Securities Acquired with Deteriorated Credit Quality (ASC 310-30), by analogy.

<sup>(2)</sup> Reported net of deferred costs totaling \$27.2 million and \$19.7 million at June 30, 2019 and December 31, 2018, respectively.

The Corporation acquired loans at fair value as of the acquisition date, which includes loans acquired in the acquisitions of Talmer Bancorp, Inc. ("Talmer"), Lake Michigan Financial Corporation ("Lake Michigan"), Monarch Community Bancorp, Inc. ("Monarch"), Northwestern Bancorp, Inc. ("Northwestern") and O.A.K. Financial Corporation ("OAK"). Loans acquired in each of these transactions ("Acquired Loans") were elected to be accounted for under ASC 310-30, by analogy, which recognizes the expected shortfall of expected future cash flows, as compared to the contractual amount due, as nonaccretable difference. Any excess of the net present value of expected future cash flows over the acquisition date fair value is recognized as the accretable discount, or accretable yield. The accretable yield is recognized over the expected remaining life of the acquired loans on a pool basis. In the event an acquired loan is renewed or extended, the loan continues to be accounted for as an acquired loan on a pool basis in accordance with ASC 310-30.

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Activity for the accretable yield, which includes contractually due expected cash flows for acquired loans that have been renewed or extended since the date of acquisition and continue to be accounted for in loan pools in accordance with ASC 310-30, follows:

(Dollars in thousands)	Talmer	Lake Michigan	Monarch	North-western	OAK	Total
<b>Three Months Ended June 30, 2019</b>						
Balance at beginning of period	\$ 469,713	\$ 68,995	\$ 16,967	\$ 38,644	\$ 8,345	\$ 602,664
Accretion recognized in interest income	(36,730)	(5,291)	(852)	(3,214)	(1,334)	(47,421)
Net reclassification (to) from nonaccretable difference <sup>(1)</sup>	730	409	750	745	913	3,547
Balance at end of period	<u>\$ 433,713</u>	<u>\$ 64,113</u>	<u>\$ 16,865</u>	<u>\$ 36,175</u>	<u>\$ 7,924</u>	<u>\$ 558,790</u>
<b>Three Months Ended June 30, 2018</b>						
Balance at beginning of period	\$ 685,830	\$ 90,156	\$ 21,154	\$ 55,400	\$ 16,158	\$ 868,698
Accretion recognized in interest income	(42,136)	(6,302)	(962)	(4,618)	(2,882)	(56,900)
Net reclassification (to) from nonaccretable difference <sup>(1)</sup>	(27,526)	(3,412)	(61)	(1,051)	1,016	(31,034)
Balance at end of period	<u>\$ 616,168</u>	<u>\$ 80,442</u>	<u>\$ 20,131</u>	<u>\$ 49,731</u>	<u>\$ 14,292</u>	<u>\$ 780,764</u>
<b>Six Months Ended June 30, 2019</b>						
Balance at beginning of period	\$ 505,332	\$ 73,132	\$ 17,832	\$ 41,455	\$ 9,574	\$ 647,325
Accretion recognized in interest income	(74,761)	(10,842)	(1,626)	(6,634)	(2,703)	(96,566)
Net reclassification (to) from nonaccretable difference <sup>(1)</sup>	3,142	1,823	659	1,354	1,053	8,031
Balance at end of period	<u>\$ 433,713</u>	<u>\$ 64,113</u>	<u>\$ 16,865</u>	<u>\$ 36,175</u>	<u>\$ 7,924</u>	<u>\$ 558,790</u>
<b>Six Months Ended June 30, 2018</b>						
Balance at beginning of period	\$ 731,353	\$ 95,124	\$ 22,496	\$ 60,814	\$ 17,110	\$ 926,897
Accretion recognized in interest income	(84,776)	(13,060)	(2,118)	(9,522)	(5,985)	(115,461)
Net reclassification (to) from nonaccretable difference <sup>(1)</sup>	(30,409)	(1,622)	(247)	(1,561)	3,167	(30,672)
Balance at end of period	<u>\$ 616,168</u>	<u>\$ 80,442</u>	<u>\$ 20,131</u>	<u>\$ 49,731</u>	<u>\$ 14,292</u>	<u>\$ 780,764</u>

<sup>(1)</sup> The net reclassification results from changes in expected cash flows of the acquired loans which may include increases in the amount of contractual principal and interest expected to be collected due to improvement in credit quality, increases in balances outstanding from advances, renewals, extensions and interest rates; as well as reductions in contractual principal and interest expected to be collected due to credit deterioration, payoffs, and decreases in interest rates.

### Credit Quality Monitoring

The Corporation maintains loan policies and credit underwriting standards as part of the process of managing credit risk. These standards include making loans generally only within the Corporation's market areas. The Corporation's lending markets generally consist of communities throughout Michigan, Ohio and Northern Indiana.

The Corporation, through Chemical Bank, has a commercial loan portfolio approval process involving underwriting and individual and group loan approval authorities to consider credit quality and loss exposure at loan origination. The loans in the Corporation's commercial loan portfolio are risk rated at origination based on the grading system set forth below. The approval authority of relationship managers is established based on experience levels, with credit decisions greater than \$1.25 million requiring credit officer approval and credit decisions greater than \$3.0 million requiring group loan authority approval, except for six executive and senior officers who have varying loan limits up to \$8.0 million. With respect to the group loan authorities, Chemical Bank has various regional loan committees that meet weekly to consider loans ranging in amounts of \$3.0 million to \$7.0 million, and a senior loan committee, consisting of certain executive and senior officers, that meets weekly to consider loans ranging in amounts of \$7.0 million up to Chemical Bank's internal lending limit, depending on risk rating and credit action required. Credit actions exceeding Chemical Bank's internal lending limit require the approval of the board of directors of Chemical Bank.

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The majority of the Corporation's consumer loan portfolio is comprised of secured loans that are relatively small. The Corporation's consumer loan portfolio has a centralized approval process which utilizes standardized underwriting criteria. The ongoing measurement of credit quality of the consumer loan portfolio is largely done on an exception basis. If payments are made on schedule, as agreed, then no further monitoring is performed. However, if delinquency occurs, the delinquent loans are turned over to the Corporation's collection department for resolution, resulting in repossession or foreclosure if payments are not brought current. Credit quality for the entire consumer loan portfolio is measured by the periodic delinquency rate, nonaccrual amounts and actual losses incurred.

Loans in the commercial loan portfolio tend to be larger and more complex than those in the consumer loan portfolio, and therefore, are subject to more intensive monitoring. All loans in the commercial loan portfolio have an assigned relationship manager, and most borrowers provide periodic financial and operating information that allows the relationship managers to stay abreast of credit quality during the life of the loans. The risk ratings of loans in the commercial loan portfolio are reassessed at least annually, with loans below an acceptable risk rating reassessed more frequently and reviewed by various loan committees within the Corporation at least quarterly.

The Corporation maintains a centralized independent loan review function that monitors the approval process and ongoing asset quality of the loan portfolio, including the accuracy of loan grades. The Corporation also maintains an independent appraisal review function that participates in the review of all appraisals obtained by the Corporation for loans in the commercial loan portfolio.

### **Credit Quality Indicators**

#### Commercial Loan Portfolio

Risk categories for the Corporation's commercial loan portfolio establish the credit quality of a borrower by measuring liquidity, debt capacity, coverage and payment behavior as shown in the borrower's financial statements. The risk categories also measure the quality of the borrower's management and the repayment support offered by any guarantors. Risk categories for the Corporation's commercial loan portfolio are described as follows:

*Pass:* Includes all loans without weaknesses or potential weaknesses identified in the categories of special mention, substandard or doubtful.

*Special Mention:* Loans with potential credit weakness or credit deficiency, which, if not corrected, pose an unwarranted financial risk that could weaken the loan by adversely impacting the future repayment ability of the borrower.

*Substandard:* Loans with a well-defined weakness, or weaknesses, such as loans to borrowers who may be experiencing losses from operations or inadequate liquidity of a degree and duration that jeopardizes the orderly repayment of the loan. Substandard loans also are distinguished by the distinct possibility of loss in the future if these weaknesses are not corrected.

*Doubtful:* Loans with all the characteristics of a loan classified as Substandard, with the added characteristic that credit weaknesses make collection in full highly questionable and improbable. The primary source of repayment is nonexistent and there is doubt as to the value of the secondary source of repayments. A doubtful asset has a high probability of total or substantial loss, but because of pending events that may strengthen the asset, its classification as loss is deferred.

*Loss:* An asset classified as loss is considered uncollectible and of such little value that the continuance as a bankable asset is not warranted. This classification does not mean that an asset has absolutely no recovery or salvage value, but rather that it is not practical or desirable to defer writing off this basically worthless asset even through partial recovery may occur in the future.

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The following schedule presents the recorded investment of loans in the commercial loan portfolio by credit risk categories at June 30, 2019 and December 31, 2018:

(Dollars in thousands)	Pass	Special Mention	Substandard	Doubtful	Total
<b>June 30, 2019</b>					
Originated Portfolio:					
Commercial	\$ 3,513,993	\$ 123,194	\$ 108,373	\$ 6,968	\$ 3,752,528
Commercial real estate:					
Owner-occupied	1,452,031	25,913	50,697	161	1,528,802
Non-owner occupied	2,023,577	5,516	27,433	5	2,056,531
Vacant land	35,546	96	1,513	—	37,155
Total commercial real estate	3,511,154	31,525	79,643	166	3,622,488
Real estate construction and land development	664,122	3,612	4,039	—	671,773
Subtotal	7,689,269	158,331	192,055	7,134	8,046,789
Acquired Portfolio:					
Commercial	505,823	62,253	25,512	1,769	595,357
Commercial real estate:					
Owner-occupied	462,266	18,226	14,835	432	495,759
Non-owner occupied	655,602	43,147	17,382	15	716,146
Vacant land	12,614	193	—	—	12,807
Total commercial real estate	1,130,482	61,566	32,217	447	1,224,712
Real estate construction and land development	28,715	42	240	—	28,997
Subtotal	1,665,020	123,861	57,969	2,216	1,849,066
Total	<u>\$ 9,354,289</u>	<u>\$ 282,192</u>	<u>\$ 250,024</u>	<u>\$ 9,350</u>	<u>\$ 9,895,855</u>
<b>December 31, 2018</b>					
Originated Portfolio:					
Commercial	\$ 3,118,894	\$ 87,222	\$ 77,036	\$ 3,935	\$ 3,287,087
Commercial real estate:					
Owner-occupied	1,430,948	32,056	50,286	242	1,513,532
Non-owner occupied	1,901,822	39,416	25,092	—	1,966,330
Vacant land	36,499	—	3,741	55	40,295
Total commercial real estate	3,369,269	71,472	79,119	297	3,520,157
Real estate construction and land development	557,040	6,108	3,578	—	566,726
Subtotal	7,045,203	164,802	159,733	4,232	7,373,970
Acquired Portfolio:					
Commercial	655,883	36,809	22,773	16	715,481
Commercial real estate:					
Owner-occupied	500,072	28,909	17,033	11	546,025
Non-owner occupied	740,900	52,546	25,244	—	818,690
Vacant land	26,978	237	—	—	27,215
Total commercial real estate	1,267,950	81,692	42,277	11	1,391,930
Real estate construction and land development	29,248	97	1,141	—	30,486
Subtotal	1,953,081	118,598	66,191	27	2,137,897
Total	<u>\$ 8,998,284</u>	<u>\$ 283,400</u>	<u>\$ 225,924</u>	<u>\$ 4,259</u>	<u>\$ 9,511,867</u>

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Consumer Loan Portfolio

The Corporation evaluates the credit quality of loans in the consumer loan portfolio based on the performing or nonperforming status of the loan. Loans in the consumer loan portfolio that are performing in accordance with original contractual terms and are less than 90 days past due and accruing interest are considered to be in a performing status, while those that are in nonaccrual status, contractually past due 90 days or more as to interest or principal payments, are considered to be in a nonperforming status. Loans accounted for under ASC 310-30, "Acquired loans", that are not performing in accordance with contractual terms are not reported as nonperforming because these loans are recorded in pools at their net realizable value based on the principal and interest the Corporation expects to collect on these loans.

The following schedule presents the recorded investment of loans in the consumer loan portfolio based on loans in a performing status and loans in a nonperforming status at June 30, 2019 and December 31, 2018:

(Dollars in thousands)	Residential Mortgage	Consumer Installment	Home Equity	Total Consumer
<b>June 30, 2019</b>				
Originated Loans:				
Performing	\$ 2,714,383	\$ 1,496,056	\$ 601,348	\$ 4,811,787
Nonperforming	7,636	1,411	3,487	12,534
Subtotal	<u>2,722,019</u>	<u>1,497,467</u>	<u>604,835</u>	<u>4,824,321</u>
Acquired Loans	944,594	55,368	141,765	1,141,727
Total	<u>\$ 3,666,613</u>	<u>\$ 1,552,835</u>	<u>\$ 746,600</u>	<u>\$ 5,966,048</u>
<b>December 31, 2018</b>				
Originated Loans:				
Performing	\$ 2,399,317	\$ 1,450,076	\$ 608,525	\$ 4,457,918
Nonperforming	7,988	1,276	3,604	12,868
Subtotal	<u>2,407,305</u>	<u>1,451,352</u>	<u>612,129</u>	<u>4,470,786</u>
Acquired Loans	1,051,361	69,722	166,043	1,287,126
Total	<u>\$ 3,458,666</u>	<u>\$ 1,521,074</u>	<u>\$ 778,172</u>	<u>\$ 5,757,912</u>

**Nonperforming Assets and Past Due Loans**

Nonperforming assets consist of loans for which the accrual of interest has been discontinued, other real estate owned acquired through acquisitions, other real estate owned obtained through foreclosure and other repossessed assets.

Loans are considered past due or delinquent when the contractual principal or interest due in accordance with the terms of the loan agreement or any portion thereof remains unpaid after the due date of the scheduled payments. Loans outside of those accounted for under ASC 310-30 are classified as nonaccrual when, in the opinion of management, collection of principal or interest is doubtful. The accrual of interest is discontinued when a loan is placed in nonaccrual status and any payments received reduce the carrying value of the loan. A loan may be placed back on accrual status if all contractual payments have been received and collection of future principal and interest payments are no longer doubtful. Acquired loans that are not performing in accordance with contractual terms are not reported as nonperforming because these loans are recorded in pools at their net realizable value based on the principal and interest the Corporation expects to collect on these loans.

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A summary of nonperforming assets follows:

(Dollars in thousands)	June 30, 2019	December 31, 2018
Nonperforming assets		
Nonaccrual loans:		
Commercial	\$ 37,762	\$ 30,139
Commercial real estate:		
Owner-occupied	20,814	16,056
Non-owner occupied	21,639	23,021
Vacant land	1,446	3,337
Total commercial real estate	43,899	42,414
Real estate construction and land development	3,501	12
Residential mortgage	7,636	7,988
Consumer installment	1,411	1,276
Home equity	3,487	3,604
Total nonaccrual loans	97,696	85,433
Other real estate owned and repossessed assets	8,267	6,256
<b>Total nonperforming assets</b>	<b>\$ 105,963</b>	<b>\$ 91,689</b>

The Corporation's nonaccrual loans at June 30, 2019 and December 31, 2018 included \$29.9 million and \$28.1 million, respectively, of nonaccrual TDRs.

The Corporation had \$3.6 million of residential mortgage loans that were in the process of foreclosure at June 30, 2019, compared to \$4.5 million at December 31, 2018.

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Loan delinquency, excluding acquired loans accounted for under ASC 310-30, was as follows:

(Dollars in thousands)	Loans Past Due and Still Accruing					
	30-89 days past due	90 days or more past due	Total past due	Nonaccrual Loans	Current	Total loans
<b>June 30, 2019</b>						
Originated Portfolio:						
Commercial	\$ 19,158	\$ 146	\$ 19,304	\$ 37,762	\$ 3,695,462	\$ 3,752,528
Commercial real estate:						
Owner-occupied	3,368	—	3,368	20,814	1,504,620	1,528,802
Non-owner occupied	1,714	—	1,714	21,639	2,033,178	2,056,531
Vacant land	501	—	501	1,446	35,208	37,155
Total commercial real estate	5,583	—	5,583	43,899	3,573,006	3,622,488
Real estate construction and land development	538	—	538	3,501	667,734	671,773
Residential mortgage	6,183	—	6,183	7,636	2,708,200	2,722,019
Consumer installment	3,076	—	3,076	1,411	1,492,980	1,497,467
Home equity	2,557	—	2,557	3,487	598,791	604,835
Total	\$ 37,095	\$ 146	\$ 37,241	\$ 97,696	\$12,736,173	\$12,871,110
<b>December 31, 2018</b>						
Originated Portfolio:						
Commercial	\$ 16,835	\$ —	\$ 16,835	\$ 30,139	\$ 3,240,113	\$ 3,287,087
Commercial real estate:						
Owner-occupied	4,657	52	4,709	16,056	1,492,767	1,513,532
Non-owner occupied	1,793	887	2,680	23,021	1,940,629	1,966,330
Vacant land	160	—	160	3,337	36,798	40,295
Total commercial real estate	6,610	939	7,549	42,414	3,470,194	3,520,157
Real estate construction and land development	247	—	247	12	566,467	566,726
Residential mortgage	1,688	—	1,688	7,988	2,397,629	2,407,305
Consumer installment	4,731	—	4,731	1,276	1,445,345	1,451,352
Home equity	3,843	488	4,331	3,604	604,194	612,129
Total	\$ 33,954	\$ 1,427	\$ 35,381	\$ 85,433	\$11,723,942	\$11,844,756

**Impaired Loans**

A loan is impaired when, based on current information and events, it is probable that the Corporation will be unable to collect all amounts due according to the contractual terms of the loan agreement. Impaired loans include nonperforming loans and all TDRs. Impaired loans are accounted for at the lower of the present value of expected cash flows or the estimated fair value of the collateral. When the present value of expected cash flows or the fair value of the collateral of an impaired loan not accounted for under ASC 310-30 is less than the amount of unpaid principal outstanding on the loan, the recorded principal balance of the loan is reduced to its carrying value through either a specific allowance for loan loss or a partial charge-off of the loan balance.

**Chemical Financial Corporation**  
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The following schedules present impaired loans by classes of loans at June 30, 2019 and December 31, 2018:

(Dollars in thousands)	Recorded investment	Unpaid principal balance	Related valuation allowance
<b>June 30, 2019</b>			
Impaired loans with a valuation allowance:			
Commercial	\$ 28,732	\$ 31,556	\$ 5,805
Commercial real estate:			
Owner-occupied	20,050	22,193	2,168
Non-owner occupied	18,080	19,966	1,366
Vacant land	786	1,003	59
Total commercial real estate	38,916	43,162	3,593
Real estate construction and land development	3,612	3,612	365
Residential mortgage	10,060	10,060	790
Consumer installment	1,594	1,594	109
Home equity	4,290	4,290	356
Subtotal	87,204	94,274	11,018
Impaired loans with no related valuation allowance:			
Commercial	28,775	29,586	—
Commercial real estate:			
Owner-occupied	12,057	12,895	—
Non-owner occupied	7,827	8,339	—
Vacant land	776	1,704	—
Total commercial real estate	20,660	22,938	—
Real estate construction and land development	164	164	—
Residential mortgage	7,235	7,235	—
Consumer installment	7	7	—
Home equity	1,656	1,656	—
Subtotal	58,497	61,586	—
Total impaired loans:			
Commercial	57,507	61,142	5,805
Commercial real estate:			
Owner-occupied	32,107	35,088	2,168
Non-owner occupied	25,907	28,305	1,366
Vacant land	1,562	2,707	59
Total commercial real estate	59,576	66,100	3,593
Real estate construction and land development	3,776	3,776	365
Residential mortgage	17,295	17,295	790
Consumer installment	1,601	1,601	109
Home equity	5,946	5,946	356
Total	\$ 145,701	\$ 155,860	\$ 11,018



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(Dollars in thousands)	Recorded Investment	Unpaid Principal Balance	Related Valuation Allowance
<b>December 31, 2018</b>			
Impaired loans with a valuation allowance:			
Commercial	\$ 20,957	\$ 23,781	\$ 3,546
Commercial real estate:			
Owner-occupied	14,702	16,519	1,359
Non-owner occupied	16,833	17,452	462
Vacant land	1,008	1,208	96
Total commercial real estate	32,543	35,179	1,917
Real estate construction and land development	126	126	11
Residential mortgage	10,867	10,867	816
Consumer installment	1,126	1,126	186
Home equity	4,432	4,432	328
Subtotal	70,051	75,511	6,804
Impaired loans with no related valuation allowance:			
Commercial	25,093	25,934	—
Commercial real estate:			
Owner-occupied	10,971	11,601	—
Non-owner occupied	12,412	13,411	—
Vacant land	2,825	3,911	—
Total commercial real estate	26,208	28,923	—
Real estate construction and land development	111	111	—
Residential mortgage	7,537	7,537	—
Consumer installment	377	377	—
Home equity	1,496	1,496	—
Subtotal	60,822	64,378	—
Total impaired loans:			
Commercial	46,050	49,715	3,546
Commercial real estate:			
Owner-occupied	25,673	28,120	1,359
Non-owner occupied	29,245	30,863	462
Vacant land	3,833	5,119	96
Total commercial real estate	58,751	64,102	1,917
Real estate construction and land development	237	237	11
Residential mortgage	18,404	18,404	816
Consumer installment	1,503	1,503	186
Home equity	5,928	5,928	328
Total	\$ 130,873	\$ 139,889	\$ 6,804

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The following schedule presents additional information regarding impaired loans by classes of loans segregated by those requiring a valuation allowance and those not requiring a valuation allowance for the three and six months ended June 30, 2019 and 2018, and the respective interest income amounts recognized:

(Dollars in thousands)	Three Months Ended June 30, 2019		Three Months Ended June 30, 2018		Six Months Ended June 30, 2019		Six Months Ended June 30, 2018	
	Average recorded investment	Interest income recognized while on impaired status	Average recorded investment	Interest income recognized while on impaired status	Average recorded investment	Interest income recognized while on impaired status	Average recorded investment	Interest income recognized while on impaired status
Impaired loans with a valuation allowance:								
Commercial	\$ 26,587	\$ 93	\$ 18,139	\$ 111	\$ 24,109	\$ 179	\$ 19,271	\$ 276
Commercial real estate:								
Owner-occupied	17,515	130	12,949	81	17,522	255	13,510	163
Non-owner occupied	9,050	9	2,246	10	11,055	54	3,058	21
Vacant land	788	2	1,308	17	896	10	2,502	32
Total commercial real estate	<u>27,353</u>	<u>141</u>	<u>16,503</u>	<u>108</u>	<u>29,473</u>	<u>319</u>	<u>19,070</u>	<u>216</u>
Real estate construction and land development	3,730	2	243	2	3,174	4	234	4
Residential mortgage	10,011	97	12,762	115	10,005	198	13,183	232
Consumer installment	1,250	2	1,067	2	1,213	4	986	3
Home equity	3,830	24	2,812	21	3,739	46	3,253	38
Subtotal	<u>72,761</u>	<u>359</u>	<u>51,526</u>	<u>359</u>	<u>\$ 71,713</u>	<u>\$ 750</u>	<u>\$ 55,997</u>	<u>\$ 769</u>
Impaired loans with no related valuation allowance:								
Commercial	27,865	201	20,078	147	\$ 27,510	\$ 384	\$ 19,102	\$ 242
Commercial real estate:								
Owner-occupied	14,110	73	14,565	81	12,841	126	14,967	137
Non-owner occupied	16,677	58	9,539	38	16,073	105	8,349	103
Vacant land	1,140	—	3,440	—	1,787	—	2,604	—
Total commercial real estate	<u>31,927</u>	<u>131</u>	<u>27,544</u>	<u>119</u>	<u>30,701</u>	<u>231</u>	<u>25,920</u>	<u>240</u>
Real estate construction and land development	102	2	1,994	2	76	4	1,051	3
Residential mortgage	7,241	29	7,075	25	7,488	57	6,606	48
Consumer installment	36	—	41	—	226	—	91	—
Home equity	1,987	5	2,487	2	2,096	12	2,266	9
Subtotal	<u>69,158</u>	<u>368</u>	<u>59,219</u>	<u>295</u>	<u>\$ 68,097</u>	<u>\$ 688</u>	<u>\$ 55,036</u>	<u>\$ 542</u>
Total impaired loans:								
Commercial	54,452	294	38,217	258	\$ 51,619	\$ 563	\$ 38,373	\$ 518
Commercial real estate:								
Owner-occupied	31,625	203	27,514	162	30,363	381	28,477	300
Non-owner occupied	25,727	67	11,785	48	27,128	159	11,407	124
Vacant land	1,928	2	4,748	17	2,683	10	5,106	32
Total commercial real estate	<u>59,280</u>	<u>272</u>	<u>44,047</u>	<u>227</u>	<u>60,174</u>	<u>550</u>	<u>44,990</u>	<u>456</u>
Real estate construction and land development	3,832	4	2,237	4	3,250	8	1,285	7
Residential mortgage	17,252	126	19,837	140	17,493	255	19,789	280
Consumer installment	1,286	2	1,108	2	1,439	4	1,077	3
Home equity	5,817	29	5,299	23	5,835	58	5,519	47
Total	<u>\$ 141,919</u>	<u>\$ 727</u>	<u>\$ 110,745</u>	<u>\$ 654</u>	<u>\$ 139,810</u>	<u>\$ 1,438</u>	<u>\$ 111,033</u>	<u>\$ 1,311</u>

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The difference between an impaired loan's recorded investment and the unpaid principal balance for originated loans represents a partial charge-off resulting from a confirmed loss due to the value of the collateral securing the loan being below the loan balance and management's assessment that full collection of the loan balance is not likely.

Impaired loans included \$47.9 million and \$45.6 million at June 30, 2019 and December 31, 2018, respectively, of accruing TDRs.

**Loans Modified Under Troubled Debt Restructurings (TDRs)**

The following tables present the recorded investment of loans modified into TDRs during the three and six months ended June 30, 2019 and 2018 by type of concession granted. In cases where more than one type of concession was granted, the loans were categorized based on the most significant concession.

(Dollars in thousands)	Concession type				Total number of loans	Pre-modification recorded investment	Post-modification recorded investment
	Principal deferral	Principal reduction	Interest rate	Forbearance agreement			
<b>For the three months ended June 30, 2019</b>							
Commercial loan portfolio:							
Commercial	\$ 14	\$ 12	\$ 426	\$ 3,351	13	\$ 3,818	\$ 3,803
Commercial real estate:							
Owner-occupied	156	—	268	—	4	436	424
Non-owner occupied	—	—	140	—	1	154	140
Vacant land	—	—	—	244	1	269	244
Total commercial real estate	156	—	408	244	6	859	808
Total commercial	170	12	834	3,595	19	4,677	4,611
Consumer loan portfolio:							
Residential mortgage	81	—	330	—	4	422	411
Consumer installment	15	39	13	—	6	70	67
Home equity	167	19	168	—	8	371	354
Total consumer	263	58	511	—	18	863	832
Total loans	\$ 433	\$ 70	\$ 1,345	\$ 3,595	37	\$ 5,540	\$ 5,443
<b>For the six months ended June 30, 2019</b>							
Commercial loan portfolio:							
Commercial	\$ 388	\$ 12	\$ 867	\$ 6,892	24	\$ 8,386	\$ 8,159
Commercial real estate:							
Owner-occupied	2,863	103	297	1,360	9	4,649	4,623
Non-owner occupied	—	—	140	—	1	154	140
Vacant land	22	—	—	244	2	293	266
Total commercial real estate	2,885	103	437	1,604	12	5,096	5,029
Total Commercial	3,273	115	1,304	8,496	36	13,482	13,188
Consumer loan portfolio:							
Residential mortgage	248	75	330	—	6	679	653
Consumer installment	61	65	13	—	17	149	139
Home equity	275	19	168	—	11	482	462
Total Consumer	584	159	511	—	34	1,310	1,254
Total loans	\$ 3,857	\$ 274	\$ 1,815	\$ 8,496	70	\$ 14,792	\$ 14,442

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(Dollars in thousands)	Concession type				Total number of loans	Pre- modification recorded investment	Post- modification recorded investment
	Principal deferral	Principal reduction	Interest rate	Forbearance agreement			
<b>For the three months ended June 30, 2018</b>							
Commercial loan portfolio:							
Commercial	\$ 740	\$ —	\$ 218	\$ —	13	\$ 969	\$ 958
Commercial real estate:							
Owner-occupied	370	—	162	31	6	575	563
Total commercial real estate	370	—	162	31	6	575	563
Total commercial	1,110	—	380	31	19	1,544	1,521
Consumer loan portfolio:							
Residential mortgage	131	40	39	—	3	215	210
Consumer installment	15	44	10	—	9	72	69
Home equity	81	—	87	—	4	171	168
Total consumer	227	84	136	—	16	458	447
Total loans	<u>\$ 1,337</u>	<u>\$ 84</u>	<u>\$ 516</u>	<u>\$ 31</u>	<u>35</u>	<u>\$ 2,002</u>	<u>\$ 1,968</u>
<b>For the six months ended June 30, 2018</b>							
Commercial loan portfolio:							
Commercial	\$ 1,643	\$ —	\$ 1,283	\$ 261	31	\$ 3,204	\$ 3,187
Commercial real estate:							
Owner-occupied	370	—	888	513	8	1,783	1,771
Non-owner occupied	68	—	—	—	1	74	68
Total commercial real estate	438	—	888	513	9	1,857	1,839
Total Commercial	2,081	—	2,171	774	40	5,061	5,026
Consumer loan portfolio:							
Residential mortgage	269	40	39	—	7	357	348
Consumer installment	86	67	38	—	25	200	191
Home equity	266	—	115	—	9	424	381
Total Consumer	621	107	192	—	41	981	920
Total loans	<u>\$ 2,702</u>	<u>\$ 107</u>	<u>\$ 2,363</u>	<u>\$ 774</u>	<u>81</u>	<u>\$ 6,042</u>	<u>\$ 5,946</u>

The pre-modification and post-modification recorded investment represents amounts as of the date of loan modification. The difference between the pre-modification and post-modification recorded investment of residential mortgage TDRs represents impairment recognized by the Corporation through the provision for loan losses computed based on a loan's post-modification present value of expected future cash flows discounted at the loan's original effective interest rate.

The following schedule presents the Corporation's TDRs at June 30, 2019 and December 31, 2018:

(Dollars in thousands)	Accruing TDRs	Nonaccrual TDRs	Total
<b>June 30, 2019</b>			
Commercial loan portfolio	\$ 35,549	\$ 26,526	\$ 62,075
Consumer loan portfolio	12,304	3,397	15,701
Total	<u>\$ 47,853</u>	<u>\$ 29,923</u>	<u>\$ 77,776</u>
<b>December 31, 2018</b>			
Commercial loan portfolio	\$ 32,508	\$ 24,343	\$ 56,851
Consumer loan portfolio	13,072	3,732	16,804
Total	<u>\$ 45,580</u>	<u>\$ 28,075</u>	<u>\$ 73,655</u>

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The following schedule includes TDRs for which there was a payment default during the three and six months ended June 30, 2019 and 2018, whereby the borrower was past due with respect to principal and/or interest for 90 days or more, and the loan became a TDR during the twelve-month period prior to the default:

<b>(Dollars in thousands)</b>	<b>For The Three Months Ended June 30,</b>			
	<b>2019</b>		<b>2018</b>	
	<b>Number of loans</b>	<b>Principal balance</b>	<b>Number of loans</b>	<b>Principal balance</b>
Commercial loan portfolio	—	\$ —	2	\$ 67
Consumer loan portfolio	2	29	7	42
Total	2	\$ 29	9	\$ 109

<b>(Dollars in thousands)</b>	<b>For The Six Months Ended June 30,</b>			
	<b>2019</b>		<b>2018</b>	
	<b>Number of loans</b>	<b>Principal balance</b>	<b>Number of loans</b>	<b>Principal balance</b>
Commercial loan portfolio	—	\$ —	3	\$ 149
Consumer loan portfolio	2	29	8	45
Total	2	\$ 29	11	\$ 194

Commitments to lend additional funds to borrowers whose terms have been modified in TDRs totaled \$4.3 million and \$3.2 million at June 30, 2019 and December 31, 2018, respectively.

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**Allowance for Loan Losses**

The following schedule presents, by loan portfolio segment, the changes in the allowance for the originated loan portfolio for the three and six months ended June 30, 2019 and 2018.

(Dollars in thousands)	Commercial Loan Portfolio	Consumer Loan Portfolio	Total
<b>Originated Loan Portfolio</b>			
<b>Changes in allowance for loan losses for the three months ended June 30, 2019:</b>			
Beginning balance	\$ 84,010	\$ 26,274	\$ 110,284
Provision for loan losses	4,848	2,654	7,502
Charge-offs	(2,013)	(1,611)	(3,624)
Recoveries	1,055	750	1,805
Ending balance	<u>\$ 87,900</u>	<u>\$ 28,067</u>	<u>\$ 115,967</u>
<b>Changes in allowance for loan losses for the six months ended June 30, 2019:</b>			
Beginning balance	\$ 82,759	\$ 26,805	\$ 109,564
Provision for loan losses	6,712	3,269	9,981
Charge-offs	(3,447)	(3,382)	(6,829)
Recoveries	1,876	1,375	3,251
Ending balance	<u>\$ 87,900</u>	<u>\$ 28,067</u>	<u>\$ 115,967</u>
<b>Changes in allowance for loan losses for the three months ended June 30, 2018:</b>			
Beginning balance	\$ 67,744	\$ 27,018	\$ 94,762
Provision for loan losses	7,923	1,649	9,572
Charge-offs	(3,890)	(1,836)	(5,726)
Recoveries	888	519	1,407
Ending balance	<u>\$ 72,665</u>	<u>\$ 27,350</u>	<u>\$ 100,015</u>
<b>Changes in allowance for loan losses for the six months ended June 30, 2018:</b>			
Beginning balance	\$ 66,133	\$ 25,754	\$ 91,887
Provision for loan losses	11,323	4,505	15,828
Charge-offs	(6,484)	(4,066)	(10,550)
Recoveries	1,693	1,157	2,850
Ending balance	<u>\$ 72,665</u>	<u>\$ 27,350</u>	<u>\$ 100,015</u>

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The following schedule presents, by loan portfolio, the changes in the allowance for the acquired loan portfolio.

(Dollars in thousands)	Commercial Loan Portfolio	Consumer Loan Portfolio	Total
<b>Acquired Loan Portfolio</b>			
<b>Changes in allowance for loan losses for the three months ended June 30, 2019:</b>			
Beginning balance	\$ —	\$ —	\$ —
Provision for loan losses	—	—	—
Charge-offs	—	—	—
Recoveries	—	—	—
Ending balance	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>
<b>Changes in allowance for loan losses for the six months ended June 30, 2019:</b>			
Beginning balance	\$ 420	\$ —	\$ 420
Provision for loan losses	(420)	—	(420)
Charge-offs	—	—	—
Recoveries	—	—	—
Ending balance	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>

The following schedule presents by loan portfolio segment, details regarding the balance in the allowance and the recorded investment in loans at June 30, 2019 and December 31, 2018 by impairment evaluation method.

(Dollars in thousands)	Commercial Loan Portfolio	Consumer Loan Portfolio	Total
<b>Allowance for loan losses balance at June 30, 2019 attributable to:</b>			
Loans individually evaluated for impairment	\$ 9,763	\$ 1,255	\$ 11,018
Loans collectively evaluated for impairment	78,137	26,812	104,949
Loans accounted for under ASC 310-30	—	—	—
Total	<u>\$ 87,900</u>	<u>\$ 28,067</u>	<u>\$ 115,967</u>
<b>Recorded investment (loan balance) at June 30, 2019:</b>			
Loans individually evaluated for impairment	\$ 120,859	\$ 24,842	\$ 145,701
Loans collectively evaluated for impairment	7,925,930	4,799,479	12,725,409
Loans accounted for under ASC 310-30	1,849,066	1,141,727	2,990,793
Total	<u>\$ 9,895,855</u>	<u>\$ 5,966,048</u>	<u>\$ 15,861,903</u>
<b>Allowance for loan losses balance at December 31, 2018 attributable to:</b>			
Loans individually evaluated for impairment	\$ 5,474	\$ 1,330	\$ 6,804
Loans collectively evaluated for impairment	77,285	25,475	102,760
Loans acquired with deteriorated credit quality	420	—	420
Total	<u>\$ 83,179</u>	<u>\$ 26,805</u>	<u>\$ 109,984</u>
<b>Recorded investment (loan balance) at December 31, 2018:</b>			
Loans individually evaluated for impairment	\$ 105,038	\$ 25,835	\$ 130,873
Loans collectively evaluated for impairment	7,268,932	4,444,951	11,713,883
Loans acquired with deteriorated credit quality	2,137,897	1,287,126	3,425,023
Total	<u>\$ 9,511,867</u>	<u>\$ 5,757,912</u>	<u>\$ 15,269,779</u>

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**Note 6: Other Real Estate Owned and Repossessed Assets**

Changes in other real estate owned and repossessed assets, included in interest receivable and other assets on the Consolidated Statements of Financial Position, were as follows:

(Dollars in thousands)	Other real estate owned	Repossessed assets
<b>Balance at January 1, 2019</b>	\$ 5,832	\$ 424
Additions <sup>(1)</sup>	5,420	1,309
Net payments received	(214)	—
Disposals	(2,372)	(1,403)
Write-downs	(729)	—
<b>Balance at June 30, 2019</b>	<u>\$ 7,937</u>	<u>\$ 330</u>
<b>Balance at January 1, 2018</b>	\$ 8,182	\$ 625
Transfers based on adoption of ASU 2014-09 <sup>(2)</sup>	(189)	—
Additions <sup>(1)</sup>	2,448	2,645
Net payments received	(139)	—
Disposals	(4,642)	(2,319)
Write-downs	(783)	—
<b>Balance at June 30, 2018</b>	<u>\$ 4,877</u>	<u>\$ 951</u>

<sup>(1)</sup> Includes loans transferred to other real estate owned and other repossessed assets.

<sup>(2)</sup> In accordance with the updates to Topic 606 adopted by the Corporation effective January 1, 2018, \$1.1 million of other real estate owned sold with seller financing were reclassified on the Consolidated Statements of Financial Position to loans and the related \$0.9 million of deferred gains were recognized in income as an adjustment to opening retained earnings. Refer to Note 1, Basis of Presentation and Significant Accounting Policies, for further information.

At June 30, 2019, the Corporation had \$1.9 million of other real estate owned and repossessed assets as a result of obtaining physical possession in accordance with ASU No. 2014-04, Reclassification of Residential Real Estate Collateralized Consumer Mortgage Loans Upon Foreclosure. In addition, there were \$3.6 million of consumer mortgage loans secured by residential real estate properties for which formal foreclosure proceedings are in process as of June 30, 2019.



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Income and expenses related to other real estate owned and repossessed assets, recorded as a component of "Other" operating expenses in the Consolidated Statements of Income, were as follows:

(Dollars in thousands)	Other real estate owned	Repossessed assets
<b>For the three months ended June 30, 2019</b>		
Net gain (loss) on sale	\$ 824	\$ (14)
Write-downs	(435)	—
Net operating expenses	(248)	(2)
Total	<u>\$ 141</u>	<u>\$ (16)</u>
<b>For the six months ended June 30, 2019</b>		
Net gain (loss) on sale	\$ 1,568	\$ (32)
Write-downs	(729)	—
Net operating expenses	(555)	(5)
Total	<u>\$ 284</u>	<u>\$ (37)</u>
<b>For the three months ended June 30, 2018</b>		
Net gain (loss) on sale	\$ 23	\$ (60)
Write-downs	(132)	—
Net operating expenses	(318)	(2)
Total	<u>\$ (427)</u>	<u>\$ (62)</u>
<b>For the six months ended June 30, 2018</b>		
Net gain (loss) on sale	\$ 779	\$ (94)
Write-downs	(783)	—
Net operating expenses	(715)	(3)
Total	<u>\$ (719)</u>	<u>\$ (97)</u>

**Note 7: Goodwill**

Goodwill was \$1.13 billion at both June 30, 2019 and December 31, 2018. The difference between consideration paid for the business and the net fair value of assets and liabilities is recognized as goodwill.

Goodwill is not amortized but is subject to impairment testing annually as of October 31 and on an interim basis if events or changes in circumstances indicate assets might be impaired. Impairment exists when the carrying value of goodwill exceeds its fair value. The Corporation's most recent annual goodwill impairment review performed as of October 31, 2018 did not indicate that an impairment of goodwill existed. The Corporation also determined that no triggering events have occurred that indicated impairment from the most recent valuation date through June 30, 2019 and that the Corporation's goodwill was not impaired at June 30, 2019.

**Note 8: Loan Servicing Rights**

LSRs are created as a result of selling residential mortgage and commercial real estate loans in the secondary market while retaining the right to service these loans and receive servicing income over the life of the loan, and from acquisitions of other banks that had LSRs. Loans serviced for others are not reported as assets in the Consolidated Statements of Financial Position. The Corporation has elected to account for LSRs under the fair value measurement method.

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LSRs are established and recorded at the estimated fair value by calculating the present value of estimated future net servicing cash flows, taking into consideration actual and expected mortgage loan prepayment rates, discount rates, servicing costs, and other economic factors, which are determined based on current market conditions. The following table represents the activity for LSRs and the related fair value changes:

(Dollars in thousands)	Commercial Real Estate	Mortgage	Total
<b>For the three months ended June 30, 2019</b>			
Fair value, beginning of period	\$ 559	\$ 64,142	\$ 64,701
Additions from loans sold with servicing retained	—	2,109	2,109
Changes in fair value due to:			
Reductions from pay-offs, pay downs and run-off	(34)	(661)	(695)
Changes in estimates of fair value <sup>(1)</sup>	—	(5,457)	(5,457)
Fair value, end of period	<u>\$ 525</u>	<u>\$ 60,133</u>	<u>\$ 60,658</u>
<b>For the six months ended June 30, 2019</b>			
Fair value, beginning of period	\$ 451	\$ 70,562	\$ 71,013
Additions from loans sold with servicing retained	138	4,104	4,242
Changes in fair value due to:			
Reductions from pay-offs, pay downs and run-off	(64)	(1,430)	(1,494)
Changes in estimates of fair value <sup>(1)</sup>	—	(13,103)	(13,103)
Fair value, end of period	<u>\$ 525</u>	<u>\$ 60,133</u>	<u>\$ 60,658</u>
Principal balance of loans serviced	<u>\$ 43,657</u>	<u>\$ 6,731,556</u>	<u>\$ 6,775,213</u>
<b>For the three months ended June 30, 2018</b>			
Fair value, beginning of period	\$ 441	\$ 68,396	\$ 68,837
Additions from loans sold with servicing retained	45	2,239	2,284
Changes in fair value due to:			
Reductions from pay-offs, pay downs and run-off	(29)	(698)	(727)
Changes in estimates of fair value <sup>(1)</sup>	—	(30)	(30)
Fair value, end of period	<u>\$ 457</u>	<u>\$ 69,907</u>	<u>\$ 70,364</u>
<b>For the six months ended June 30, 2018</b>			
Fair value, beginning of period	\$ 427	\$ 63,414	\$ 63,841
Additions from loans sold with servicing retained	88	4,163	4,251
Changes in fair value due to:			
Reductions from pay-offs, pay downs and run-off	(58)	(1,392)	(1,450)
Change in estimates of fair value <sup>(1)</sup>	—	3,722	3,722
Fair value, end of period	<u>\$ 457</u>	<u>\$ 69,907</u>	<u>\$ 70,364</u>
Principal balance of loans serviced	<u>\$ 42,490</u>	<u>\$ 6,946,356</u>	<u>\$ 6,988,846</u>

<sup>(1)</sup> Represents estimated LSR value change resulting primarily from market-driven changes in interest rates and prepayments. Included in "Net gain on sale of loans and other mortgage banking revenue" in the Consolidated Statements of Income.

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Expected and actual loan prepayment speeds are the most significant factors driving the fair value of loan servicing rights. The following table presents assumptions utilized in determining the fair value of loan servicing rights as of June 30, 2019 and December 31, 2018.

	<b>Mortgage</b>
<b>As of June 30, 2019</b>	
Prepayment speed	<b>6.0 - 29.72</b>
Weighted average ("WA") discount rate	<b>10.1%</b>
WA cost to service/per year	<b>\$ 66</b>
WA ancillary income/per year	<b>\$ 31</b>
WA float range	<b>2.4%</b>
<b>As of December 31, 2018</b>	
Prepayment speed	0.0 - 26.4%
WA discount rate	10.1%
WA cost to service/per year	\$ 66
WA ancillary income/per year	\$ 31
WA float range	2.5%

The Corporation realized total loan servicing fee income of \$4.2 million and \$4.4 million for the three months ended June 30, 2019 and 2018, respectively, and \$8.4 million and \$9.0 million for the six months ended June 30, 2019 and 2018, respectively, included in "Net gain on sale of loans and other mortgage banking revenue" in the Consolidated Statements of Income.

**Note 9: Core Deposit Intangibles**

The Corporation recorded core deposit intangible assets associated with each of its acquisitions and its merger with Talmer. Core deposit intangible assets are amortized on an accelerated basis over their estimated useful lives and have an estimated remaining weighted-average useful life of 6.1 years as of June 30, 2019.

The following table sets forth the carrying amount and accumulated amortization of core deposit intangible assets that are amortizable and arose from business combinations or other acquisitions:

<b>(Dollars in thousands)</b>	<b>June 30, 2019</b>	<b>December 31, 2018</b>
Gross original amount	<b>\$ 56,456</b>	\$ 56,456
Accumulated amortization	<b>30,621</b>	27,900
Net carrying amount	<b>\$ 25,835</b>	\$ 28,556

Amortization expense recognized on core deposit intangible assets was \$1.4 million for both the three months ended June 30, 2019 and 2018, and \$2.7 million and \$2.9 million for the six months ended June 30, 2019 and 2018, respectively.

The estimated future amortization expense on core deposit intangible assets for periods ending after June 30, 2019 is as follows:

<b>(Dollars in thousands)</b>	<b>Estimated amortization expense</b>
2019	2,722
2020	4,851
2021	4,471
2022	4,218
2023	3,591
2024 and thereafter	5,982

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**Note 10: Derivative Instruments and Balance Sheet Offsetting**

In the normal course of business, the Corporation enters into various transactions involving derivative instruments to manage exposure to fluctuations in interest rates and to meet the financing needs of customers (customer-initiated derivatives). These financial instruments involve, to varying degrees, elements of market and credit risk. Market and credit risk are included in the determination of fair value.

Commitments to fund mortgage loans (interest rate locks) to be sold into the secondary market and forward commitments for the future delivery of mortgage loans to third party investors are considered derivatives. It is the Corporation's practice to enter into forward commitments for the future delivery of mortgage loans when interest rate lock commitments are entered into in order to economically hedge the effect of changes in interest rates resulting from its commitments to fund the loans.

The Corporation enters into interest rate derivatives to provide a service to certain qualifying customers to help facilitate their respective risk management strategies. These customer-initiated derivatives are not used for interest rate risk management purposes and primarily consist of interest rate swaps, interest rate caps and floors and foreign exchange contracts. The Corporation generally takes offsetting positions with dealer counterparts to mitigate the inherent risk. Income primarily results from the spread between the customer derivative and the offsetting dealer positions. Gains and losses on customer-related derivatives are included in other noninterest income.

The Corporation utilizes interest rate swaps designated as cash flow hedges for risk management purposes to manage exposure that arises from business activities that result in the receipt or payment of future known and uncertain cash amounts, the value of which are determined by interest rates. These interest rate swaps designated as cash flow hedges are used to manage differences in the amount, timing and duration of the Corporation's known or expected cash receipts and its known or expected cash payments principally related to certain variable rate borrowings. The Corporation assesses the effectiveness of each hedging relationship by comparing the changes in cash flows of the derivative instruments with the changes in cash flows of the designated hedged transactions. The changes in fair value of derivatives designated and that qualify as cash flow hedges are recorded in accumulated other comprehensive income (loss) and are subsequently reclassified into earnings in the period that the hedged forecasted transaction affects earnings. For the Corporation's derivative instruments that are designated and qualify as a cash flow hedge, the gain or loss on the derivative instrument, as well as the offsetting loss or gain on the hedged item attributable to the hedged risk are recognized in current earnings in the same line item as the offsetting loss or gain on the related interest rate swap. The Corporation expects the hedges to remain highly effective during the remaining terms of the swaps.

The Corporation additionally has written and purchased option derivatives consisting of instruments to facilitate an equity-linked time deposit product (the "Power Equity CD"). The Power Equity CD is a time deposit that provides the purchaser a guaranteed return of principal at maturity plus a potential equity return (a written option), while the Corporation receives 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 Statements of Financial Position.

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The following table presents the notional amount and fair value of the Corporation's derivative instruments held or issued in connection with customer-initiated and mortgage banking activities.

(Dollars in thousands)	June 30, 2019			December 31, 2018		
	Fair Value			Fair Value		
	Notional Amount (1)	Gross Derivative Assets (2)	Gross Derivative Liabilities (2)	Notional Amount (1)	Gross Derivative Assets (2)	Gross Derivative Liabilities (2)
Risk management purposes:						
Derivatives designated as hedging instruments:						
Interest rate swaps	\$1,145,000	\$ 606	\$ 25,060	\$ 820,000	\$ 10,148	\$ 3,278
Total risk management purposes	1,145,000	606	25,060	820,000	10,148	3,278
Customer-initiated and mortgage banking derivatives:						
Customer-initiated derivatives	2,908,127	69,024	70,707	2,477,640	26,680	27,664
Forward contracts related to mortgage loans to be delivered for sale	165,772	—	661	127,159	—	719
Interest rate lock commitments	149,084	2,687	—	54,848	1,049	—
Power Equity CD	35,295	751	751	36,771	718	718
Total customer-initiated and mortgage banking derivatives	3,258,278	72,462	72,119	2,696,418	28,447	29,101
Total gross derivatives	\$4,403,278	\$ 73,068	\$ 97,179	\$3,516,418	\$ 38,595	\$ 32,379

(1) Notional or contract amounts, which represent the extent of involvement in the derivatives market, are used to determine the contractual cash flows required in accordance with the terms of the agreement. These amounts are typically not exchanged, significantly exceed amounts subject to credit or market risk and are not reflected in the Consolidated Statements of Financial Position.

(2) Derivative assets are included within "Interest receivable and other assets" and derivative liabilities are included within "Interest payable and other liabilities" on the Consolidated Statements of Financial Position. Included in the fair value of the derivative assets are credit valuation adjustments for counterparty credit risk totaling \$1.5 million at June 30, 2019 and \$901 thousand at December 31, 2018.

In the normal course of business, the Corporation may decide to settle a forward contract rather than fulfill the contract. Cash received or paid in this settlement manner is included in "Net gain on sale of loans and other mortgage banking revenue" in the Consolidated Statements of Income and is considered a cost of executing a forward contract.

The following table presents the net gains (losses) related to derivative instruments reflecting the changes in fair value.

(Dollars in thousands)	Location of Gain (Loss)	Three Months Ended June 30,		Six Months Ended June 30,	
		2019	2018	2019	2018
Forward contracts related to mortgage loans to be delivered for sale	Net gain on sale of loans and other mortgage banking revenue	\$ (8)	\$ (21)	\$ 58	\$ (391)
Interest rate lock commitments	Net gain on sale of loans and other mortgage banking revenue	929	211	1,638	763
Power Equity CD	Other noninterest income	—	—	—	—
Customer-initiated derivatives	Other noninterest income	(409)	39	(699)	366
Total gain (loss) recognized in income		\$ 512	\$ 229	\$ 997	\$ 738

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The following table presents the net gains (losses) recorded in accumulated other comprehensive income and the Consolidated Statements of Income relating to interest rate swaps designated as cash flow hedges for the three and six months ended June 30, 2019 and 2018.

<b>(Dollars in thousands)</b>	<b>Amount of gain (loss) recognized in other comprehensive income</b>	<b>Amount of gain (loss) reclassified from other comprehensive income to interest income or expense</b>
<b>Three Months Ended June 30, 2019</b>		
Interest rate swaps designated as cash flow hedges	\$ (21,229)	\$ 1,256
<b>Three Months Ended June 30, 2018</b>		
Interest rate swaps designated as cash flow hedges	4,102	589
<b>Six Months Ended June 30, 2019</b>		
Interest rate swaps designated as cash flow hedges	\$ (28,781)	\$ 2,544
<b>Six Months Ended June 30, 2018</b>		
Interest rate swaps designated as cash flow hedges	12,065	347

At June 30, 2019, the Corporation expected \$2.2 million of unrealized gains to be reclassified as an increase to interest expense during the following twelve months.

Methods and assumptions used by the Corporation in estimating the fair value of its forward contracts, interest rate lock commitments and customer-initiated derivatives are discussed in Note 3, Fair Value Measurements.

*Balance Sheet Offsetting*

Certain financial instruments, including customer-initiated derivatives and interest rate swaps, may be eligible for offset in the Consolidated Statements of Financial Position and/or subject to master netting arrangements or similar agreements. The Corporation is party to master netting arrangements with its financial institution counterparties; however, the Corporation does not offset assets and liabilities under these arrangements for financial statement presentation purposes based on an accounting policy election. The tables below present information about the Corporation's financial instruments that are eligible for offset.

<b>(Dollars in thousands)</b>	<b>Gross amounts recognized</b>	<b>Gross amounts offset in the statements of financial condition</b>	<b>Net amounts presented in the statements of financial position</b>	<b>Gross amounts not offset in the statements of financial position</b>		
				<b>Financial instruments</b>	<b>Collateral (received)/ posted</b>	<b>Net Amount</b>
<b>June 30, 2019</b>						
Offsetting derivative assets						
Derivative assets <sup>(1)</sup>	\$ 69,553	\$ —	\$ 69,553	\$ —	\$ —	\$ 69,553
Offsetting derivative liabilities						
Derivative liabilities <sup>(1)</sup>	95,492	—	95,492	—	37,291	58,201
<b>December 31, 2018</b>						
Offsetting derivative assets						
Derivative assets <sup>(1)</sup>	\$ 36,791	\$ —	\$ 36,791	\$ —	\$ (16,120)	\$ 20,671
Offsetting derivative liabilities						
Derivative liabilities	30,822	—	30,822	—	430	30,392

<sup>(1)</sup> Amount does not include participated interest rate swaps, forward contracts, interest rate lock commitments and power equity CDs as these instruments are not subject to master netting or similar arrangements.

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**Note 11: Leases**

On January 1, 2019, the Corporation adopted ASU 2016-02-Leases (Topic 842) and all subsequent ASUs that modified Topic 842. Refer to Note 1, Basis of Presentation and Significant Accounting Policies, for further details regarding the adoption.

*Lessee Leases*

Operating leases in which the Corporation is the lessee are recorded as operating lease right-of-use ("ROU") assets and operating lease liabilities, included in "Interest receivable and other assets" and "Interest payable and other liabilities," respectively, in the Consolidated Statements of Financial Position.

Operating lease ROU assets and operating lease liabilities are recognized at lease commencement based on the present value of the future minimum lease payments over the lease term. The Corporation has lease agreements with lease and non-lease components, which are accounted for separately. Where an implicit rate is not provided or determinable in the lease, the Corporation uses its incremental borrowing rate as a discount rate, on a collateralized basis, over a similar term. The lease term considers options to extend or terminate the lease when it is reasonably certain that the Corporation will exercise that option.

The Corporation's leases relate primarily to real estate property consisting of branches, office space, storage and operation centers with remaining lease terms of generally 1 to 15 years. Certain lease arrangements contain extension options which typically range from 3 to 5 years. During the three and six months ended June 30, 2019, the Corporation obtained \$877 thousand and \$6.7 million of ROU assets in exchange for new lease liabilities. Cash paid for amounts included in the measurement of lease liabilities from operating leases were \$2.0 million and \$4.0 million for the three and six months ended June 30, 2019. As of June 30, 2019, operating lease ROU assets and liabilities were \$40.5 million and \$41.4 million, respectively.

The following table presents balances and assumptions utilized in determining the right to use asset and lease liability for operating leases as of June 30, 2019:

	<b>June 30, 2019</b>
Weighted-average remaining lease terms (in years)	<b>7.85</b>
Weighted-average discount rate	<b>3.1%</b>

The components of net operating lease cost were as follows:

	<b>Three Months Ended June 30, 2019</b>	<b>Six Months Ended June 30, 2019</b>
<b>(Dollars in thousands)</b>		
Operating lease cost	<b>\$ 2,050</b>	<b>3,964</b>
Variable lease cost <sup>(1)</sup>	<b>247</b>	<b>454</b>
Sublease income	<b>(56)</b>	<b>(111)</b>
<b>Total lease cost<sup>(2)</sup></b>	<b>\$ 2,241</b>	<b>\$ 4,307</b>

<sup>(1)</sup> Represents non-lease components such as common area maintenance, taxes, insurance and utilities.

<sup>(2)</sup> Included within "Occupancy" expense in the Consolidated Statements of Income.

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Maturities of operating lease liability due under these lease arrangements as of June 30, 2019 are as follows:

<b>(Dollars in thousands)</b>	<b>Operating Leases</b>
Remainder of 2019	\$ 4,081
2020	7,490
2021	7,083
2022	6,149
2023	5,017
Thereafter	17,041
<b>Total</b>	<b>\$ 46,861</b>
Less: Present value discount	5,458
<b>Lease liability</b>	<b>\$ 41,403</b>

As of June 30, 2019, the Corporation has approximately \$247.4 million in additional leases for real property that have not yet commenced and are excluded from the lessee maturity table above. Of the aforementioned amount, \$231.6 million is related to a lease agreement for the new headquarters building in Detroit, Michigan signed on May 31, 2019, with an organization 50% owned by indirect related parties. The new headquarter lease will have a term of 22.5 years and a rent commencement date of January 1, 2022 with renewal options.

At December 31, 2018, operating lease commitments under lessee arrangements were \$7.3 million, \$6.2 million, \$5.1 million, \$4.8 million and \$4.4 million for 2019 through 2023, respectively, and \$12.1 million in aggregate for all years thereafter. These amounts include variable lease payments under leases that have not yet commenced, which are excluded from the lessee maturity analysis presented in the table above.

*Lessor Leases*

The Corporation is the lessor in certain arrangements, primarily for the use of real estate property. Lease agreements may include options to renew, but do not offer the right to purchase the underlying asset at the end of the lease term. Of the \$123.7 million of net premises and equipment, \$15.1 million represents underlying assets under operating leases as of June 30, 2019.

The components of operating lease income were as follows:

<b>(Dollars in thousands)</b>	<b>Three Months Ended June 30, 2019</b>	<b>Six Months Ended June 30, 2019</b>
Lease income - operating leases	\$ 169	363
<b>Total lease income<sup>(1)</sup></b>	<b>\$ 169</b>	<b>\$ 363</b>

<sup>(1)</sup> Included within "Other" noninterest income in the Consolidated Statements of Income.

**Note 12: Investments in Qualified Affordable Housing Projects, Federal Historic Projects and New Market Tax Credits**

The Corporation invests in qualified affordable housing projects, federal historic projects, and new market projects for the purpose of community reinvestment and obtaining tax credits. Return on the Corporation's investment in these projects comes in the form of the tax credits and tax losses that pass through to the Corporation. The carrying value of the investments is reflected in "Interest receivable and other assets" on the Consolidated Statements of Financial Position. The Corporation utilizes the proportional amortization method to account for investments in qualified affordable housing projects and the equity method to account for investments in other tax credit projects.

Under the proportional amortization method, the Corporation amortizes the initial cost of the investment in proportion to the tax credits and other tax benefits. The Corporation recognized additional income tax expense attributable to the amortization of investments in qualified affordable housing projects of \$1.6 million and \$1.1 million during the three months ended June 30, 2019 and 2018, respectively, and \$3.3 million and \$2.1 million during the six months ended June 30, 2019 and 2018, respectively. The Corporation's remaining investment in qualified affordable housing projects accounted for under the proportional amortization method totaled \$85.8 million at June 30, 2019 and \$84.9 million at December 31, 2018.



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Under the equity method, the Corporation's share of the earnings or losses is included in "Other" operating expenses on the Consolidated Statements of Income. The Corporation's remaining investment in federal historic tax projects accounted for under the equity method totaled \$32.1 million and \$13.3 million at June 30, 2019 and December 31, 2018, respectively.

The Corporation's unfunded equity contributions relating to investments in qualified affordable housing projects, federal historic tax projects and new market projects is recorded in "Interest payable and other liabilities" on the Consolidated Statements of Financial Position. The Corporation's remaining unfunded equity contributions totaled \$73.4 million and \$72.0 million at June 30, 2019 and December 31, 2018, respectively.

Management analyzes these investments for potential impairment when events or changes in circumstances indicate that it is more-likely-than-not that the carrying amount of the investment will not be realized. An impairment loss is measured as the amount by which the carrying amount of an investment exceeds its fair value. During the three and six months ended June 30, 2019, federal historic tax credits resulted in an income tax benefit of \$260 thousand, partially offset by impairment expense of \$271 thousand, representing \$214 thousand net of tax, recorded in "Other" operating expense. During the three months ended June 30, 2018, federal historic tax credits resulted in an income tax benefit of \$1.9 million, partially offset by impairment expense of \$1.7 million, representing \$1.4 million net of tax, recorded in "Other" operating expense. During the six months ended June 30, 2018, federal historic tax credits were placed into service resulting in an income tax benefit of \$3.4 million, partially offset by impairment expense of \$3.4 million, representing \$2.6 million net of tax, recorded in "Other" operating expense.

The Corporation consolidates variable interest entities ("VIEs") in which it is the primary beneficiary. In general, a VIE is an entity that either (i) has an insufficient amount of equity to carry out its principal activities without additional subordinated financial support, (ii) has a group of equity owners that are unable to make significant decisions about its activities or (iii) has a group of equity owners that do not have the obligation to absorb losses or the right to receive returns as generated by its operations. If any of these characteristics are present, the entity is subject to a variable interest consolidation model, and consolidation is based on variable interests, not on ownership of the entity's outstanding voting stock. Variable interests are defined as contractual, ownership, or other monetary interests in an entity that change with fluctuations in the entity's net asset value. The primary beneficiary consolidates the VIE. The primary beneficiary is defined as the enterprise that has the power to direct the activities and absorb losses or the right to receive benefits. The Corporation is a significant limited partner in the qualified affordable housing, federal historic and new market projects it has invested in. These projects meet the definition of VIEs. However, the Corporation is not the primary beneficiary of any of the VIEs in which it holds a limited partnership interest; therefore, the VIEs are not consolidated in the Consolidated Financial Statements.

**Note 13: Commitments, Contingencies and Guarantees**

*Commitments*

In the normal course of business, the Corporation offers a variety of financial instruments containing credit risk that are not required to be reflected in the Consolidated Statements of Financial Position. These financial instruments include outstanding commitments to extend credit, approved but undisbursed loans (undisbursed loan commitments), credit lines, commercial letters of credit and standby letters of credit. The Corporation has risk management policies to identify, monitor and limit exposure to credit risk. To mitigate credit risk for these financial guarantees, the Corporation generally determines the need for specific covenant, guarantee and collateral requirements on a case-by-case basis, depending on the nature of the financial instrument and the customer's creditworthiness.

At June 30, 2019 and December 31, 2018, the Corporation had \$123.7 million and \$119.0 million, respectively, of outstanding financial and performance standby letters of credit. The majority of these standby letters of credit are collateralized. At June 30, 2019, the Corporation had determined that there was \$329 thousand of potential losses from standby letters of credit at June 30, 2019, compared to no potential losses at December 31, 2018.

Commitments to extend credit are agreements to lend to a customer provided there is no violation of any condition established in the commitment. Commitments generally have fixed expiration dates or other termination clauses and may not require payment of a fee. Since many commitments expire without being drawn upon, the total commitment amounts do not necessarily represent future cash requirements. The Corporation evaluates each customer's creditworthiness on an individual basis. The amount of collateral obtained, if deemed necessary by the Corporation upon extension of credit, is based on management's credit evaluation of the counterparty. The collateral held varies, but may include securities, real estate, accounts receivable,

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inventory, plant or equipment. Unfunded commitments under commercial lines of credit, revolving credit lines and overdraft protection agreements are included in commitments to extend credit. These lines of credit are generally not collateralized, usually do not contain a specified maturity date and may be drawn upon only to the total extent to which the Corporation is committed. At June 30, 2019 and December 31, 2018, the Corporation had \$3.82 billion and \$3.55 billion, respectively, of commitments to extend credit. The Corporation had undisbursed loan commitments of \$537.6 million and \$493.3 million at June 30, 2019 and December 31, 2018, respectively. Undisbursed loan commitments are not included in loans on the Consolidated Statements of Financial Position. The majority of undisbursed loan commitments will be funded and convert to a portfolio loan within a one year period.

The allowance for credit losses on lending-related commitments included \$1.9 million and \$1.7 million at June 30, 2019 and December 31, 2018, respectively, for probable credit losses inherent in the Corporation's unused commitments and was recorded in "Interest payable and other liabilities" in the Consolidated Statements of Financial Position.

*Contingencies and Guarantees*

The Corporation has originated and sold certain loans, and additionally acquired the potential liability for those historical originated and sold loans by merged or acquired entities, for which the buyer has limited recourse to us in the event the loans do not perform as specified in the agreements. These loans had an outstanding balance of \$12.8 million and \$11.6 million at June 30, 2019 and December 31, 2018, respectively. The maximum potential amount of undiscounted future payments that the Corporation could be required to make in the event of nonperformance by the borrower totaled \$12.6 million and \$11.4 million at June 30, 2019 and December 31, 2018, respectively. In the event of nonperformance, the Corporation has rights to the underlying collateral securing the loans. At both June 30, 2019 and December 31, 2018, the Corporation had recorded a liability of \$100 thousand, in connection with the recourse agreements, recorded in "Interest payable and other liabilities" in the Consolidated Statements of Financial Position.

In addition, the Corporation acquired certain SBA guaranteed notes in which the guaranteed portion had been sold to a third party investor prior to the Corporation's acquisition. In the event these loans default and the SBA guaranty is no longer intact (i.e. an issue found to have occurred during the origination or the liquidation of the loans) the Corporation would be liable to make the loan whole to the third party investor. The maximum potential amount of undiscounted future payments that the Corporation could be required to make in the event of default by the borrower totaled \$17.9 million and \$19.1 million at June 30, 2019 and December 31, 2018, respectively. In the event of default, the Corporation has rights to the underlying collateral securing the loans. At June 30, 2019 and December 31, 2018, the Corporation had recorded a liability of \$891 thousand and \$1.2 million, respectively.

*Representations and Warranties*

In connection with the Corporation's mortgage banking loan sales, and the historical sales of merged or acquired entities, the Corporation makes certain representations and warranties that the loans meet certain criteria, such as collateral type and underwriting standards. The Corporation may be required to repurchase individual loans and/or indemnify the purchaser against losses if the loan fails to meet established criteria. At June 30, 2019 and December 31, 2018, the liability recorded in connection with these representations and warranties totaled \$3.2 million and \$4.1 million, respectively.

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A summary of the reserve for representations and warranties of the Corporation is as follows:

(Dollars in thousands)	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Reserve balance at beginning of period	\$ 3,983	\$ 5,105	\$ 4,084	\$ 5,349
Reserve reduction	(807)	(243)	(908)	(487)
Charge-offs	—	(2)	—	(2)
Ending reserve balance	<u>\$ 3,176</u>	<u>\$ 4,860</u>	<u>\$ 3,176</u>	<u>\$ 4,860</u>

(Dollars in thousands)	June 30, 2019	December 31, 2018
Reserve balance		
Liability for specific claims	\$ 454	\$ 398
General allowance	2,722	3,686
Total reserve balance	<u>\$ 3,176</u>	<u>\$ 4,084</u>

**Note 14: Borrowings and Other Short-Term Liabilities**

A summary of the Corporation's short- and long-term borrowings, and other short-term liabilities follows:

(Dollars in thousands)	June 30, 2019		December 31, 2018	
	Amount	Weighted Average Rate <sup>(1)</sup>	Amount	Weighted Average Rate <sup>(1)</sup>
<b>Short-term borrowings:</b>				
FHLB advances: 2.29% - 2.60% fixed-rate notes	\$ 2,580,000	2.44%	\$ 2,035,000	2.47%
AFX short-term borrowings	35,000	2.41	—	—
Total short-term borrowings	<u>\$ 2,615,000</u>	<u>2.44%</u>	<u>\$ 2,035,000</u>	<u>2.47%</u>
<b>Long-term borrowings:</b>				
FHLB advances: 1.00% - 2.72% fixed-rate notes due 2019 to 2025 <sup>(2)</sup>	\$ 410,073	2.00%	\$ 410,102	2.00%
Subordinated debt obligations: floating-rate based on three-month LIBOR plus 1.45% - 2.85% due 2034 to 2035 <sup>(3)</sup>	11,648	4.71	11,572	4.85
Subordinated debt obligations: floating-rate based on three-month LIBOR plus 3.25% due in 2032 <sup>(4)</sup>	4,348	5.84	4,328	5.65
Total long-term borrowings	<u>426,069</u>	<u>2.11</u>	<u>426,002</u>	<u>2.11</u>
Total borrowings	<u>\$ 3,041,069</u>	<u>2.39%</u>	<u>\$ 2,461,002</u>	<u>2.41%</u>
<b>Other short-term liabilities:</b>				
Collateralized customer deposits	<u>\$ 291,671</u>	<u>0.70%</u>	<u>\$ 382,687</u>	<u>0.75%</u>

<sup>(1)</sup> Weighted average rate presented is the contractual rate which excludes premiums and discounts related to purchase accounting.

<sup>(2)</sup> The June 30, 2019 balances include advances payable of \$410.0 million and purchase accounting premiums of \$73 thousand. The December 31, 2018 balance includes advances payable of \$410.0 million and purchase accounting premiums of \$102 thousand.

<sup>(3)</sup> The June 30, 2019 balance includes advances payable of \$15.0 million and purchase accounting discounts of \$3.4 million. The December 31, 2018 balance includes advances payable of \$15.0 million and purchase accounting discounts of \$3.4 million.

<sup>(4)</sup> The June 30, 2019 balance includes advances payable of \$5.0 million and purchase accounting discounts of \$652 thousand. The December 31, 2018 balance includes advances payable of \$5.0 million and purchase accounting discounts of \$672 thousand.

Chemical Bank is a member of the FHLB, which provides short- and long-term funding collateralized by mortgage related assets to its members. Each advance is payable at its maturity date, with a prepayment penalty for fixed-rate advances. The Corporation's FHLB advances, including both short-term and long-term, require monthly interest payments and are collateralized by commercial and residential mortgage loans totaling \$7.70 billion as of June 30, 2019. The Corporation's additional borrowing availability through the FHLB, subject to the FHLB's credit requirements and policies and based on the amount of FHLB stock owned by the Corporation, was \$25.0 million at June 30, 2019. Chemical Bank is additionally a member of the American Financial

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Exchange ("AFX"), through which it may borrow funds on an overnight or short-term basis with a group of pre-approved commercial banks.

**Note 15: Revenue from Contracts with Customers**

The Corporation earns a variety of revenue including interest and fees from customers as well as revenues from non-customers. Certain sources of revenue are recognized within interest income and are outside of the scope of ASC Topic 606, Revenue from Contracts with Customers ("ASC 606"). Other sources of revenue fall within the scope of ASC 606 and are mostly recognized within "Noninterest income" in the Consolidated Statements of Income.

The Corporation recognizes revenue when the performance obligations related to the transfer of goods or services under the terms of a contract are satisfied. Some obligations are satisfied at a point in time while others are satisfied over a period of time. Revenue is recognized as the amount of consideration expected to be received in exchange for transferring goods or services to a customer and is segregated based on the nature of product and services offered as part of contractual arrangements. Revenue within the scope of ASC 606 are discussed below.

- *Service charges and fees on deposit accounts* include fees and other charges the Corporation receives to provide various services, including but not limited to, maintaining an account with a customer, providing overdraft services, wire transfers, transferring funds, and accepting and executing stop-payment orders. The consideration includes both fixed (e.g., account maintenance fees) and transaction fees (i.e., wire-transfer fee). Fixed fees are recognized over the period of time the service is provided while transaction fees are recognized when a specific service is rendered to the customer.
- *Wealth management revenue* includes fee income generated from personal and institutional customers. The Corporation also provides investment management services. Services are rendered over a period of time, over which revenue is recognized. Wealth management revenue also includes commissions that are earned for placing a brokerage transaction for execution, such as stocks or other investments. Revenue is recognized once the transaction is completed and the Corporation is entitled to receive consideration.
- *Other charges and fees for customer services* includes service charges on deposit accounts and other fees including account analysis fees, monthly service fees, check orders, ATM fees and other service charges. The Corporation's performance obligation for account analysis fees and monthly service fees is generally satisfied, and therefore, revenue is recognized over the period in which the service is provided. Check orders and other deposit account related fees are largely transactional based, and therefore, the performance obligation is satisfied and related revenue recognized, at a point in time.
- *Other noninterest expense* includes net gain or loss on sales of other real estate and repossessed assets. Revenue is recognized at the time the sale is complete and the Corporation is entitled to receive consideration, including sales that are seller financed as receipt of all payment is expected.

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The following table presents total noninterest income segregated between contracts with customers within the scope of ASC 606 and those within the scope of other GAAP Topics. The following additionally presents revenues from customers and non-customers that are included within noninterest expense.

(Dollars in thousands)	Three Months Ended		Six Months Ended	
	June 30, 2019	June 30, 2018	June 30, 2019	June 30, 2018
<b>Noninterest income</b>				
Service charges and fees on deposit accounts	\$ 2,986	\$ 4,462	\$ 5,983	\$ 8,925
Wealth management revenue	1,321	1,268	2,621	2,052
Other charges and fees for customer services	1,244	1,389	2,461	3,787
Noninterest income from contracts with customers within the scope of ASC 606	5,551	7,119	11,065	14,764
Noninterest income within the scope of other GAAP topics	32,613	30,899	51,956	63,808
<b>Total noninterest income</b>	<b>\$ 38,164</b>	<b>\$ 38,018</b>	<b>\$ 63,021</b>	<b>\$ 78,572</b>
<b>Noninterest expense</b>				
Other	\$ (810)	\$ 38	\$ (1,536)	\$ (684)

*Contract Balances*

A contract asset balance occurs when an entity performs a service for a customer before the customer pays consideration (resulting in a contract receivable) or before payment is due (resulting in a contract asset). A contract liability balance is an entity's obligation to transfer a service to a customer for which the entity has already received payment (or payment is due) from the customer. The Corporation's noninterest income streams are largely based on transactional activity, or standard month-end revenue accruals such as asset management fees based on month-end market values. Consideration is most often received immediately or shortly after the Corporation satisfies its performance obligation and revenue is recognized. The Corporation does not typically enter into long-term revenue contracts with customers, and therefore, does not experience significant contract balances. As of June 30, 2019 and December 31, 2018, the Corporation did not have a material amount of contract balances.

**Note 16: Share-Based Compensation**

The Corporation maintains share-based compensation plans under which it periodically grants share-based awards for a fixed number of shares to certain officers of the Corporation. The fair value of share-based awards is recognized as compensation expense over the requisite service or performance period. During the three months ended June 30, 2019 and 2018, share-based compensation expense related to share-based awards totaled \$2.8 million and \$2.4 million, respectively. During the six months ended June 30, 2019 and 2018, share-based compensation expense related to share-based awards totaled \$5.1 million and \$4.1 million, respectively. The excess tax benefit realized from share-based compensation transactions during the three months ended June 30, 2019 and 2018 was an expense of \$16 thousand and a benefit of \$399 thousand, respectively, and during the six months ended June 30, 2019 and 2018 was a benefit of \$306 thousand and \$1.8 million, respectively.

During the six months ended June 30, 2019, the Corporation granted 379,260 restricted stock units to certain officers of the Corporation.

On May 7, 2019, the shareholders of the Corporation approved the Stock Incentive Plan of 2019, which provides for 2,400,000 shares of the Corporation's common stock to be made available for future equity-based awards and canceled the amount of shares available for future grant under prior share-based compensation plans. At June 30, 2019, there were 2,388,937 shares of common stock available for future grants under the Stock Incentive Plan of 2019.

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**Stock Options**

The Corporation issues stock options to certain officers from time to time. The exercise price on stock options equals the current market price of the Corporation's common stock on the date of grant and stock options expire ten years from the date of grant. Stock options granted after 2012 vest ratably over a five-year period. Stock options granted prior to 2016 were fully vested upon the merger with Talmer. Stock options assumed by the Corporation in the merger with Talmer were fully vested prior to assumption.

A summary of activity for the Corporation's stock options as of and for the six months ended June 30, 2019 is presented below:

	Non-Vested Stock Options Outstanding			Stock Options Outstanding	
	Number of Options	Weighted- Average Exercise Price Per Share	Weighted- Average Grant Date Fair Value Per Share	Number of Options	Weighted- Average Exercise Price Per Share
Outstanding at December 31, 2018	221,658	\$ 38.37	\$ 7.16	777,443	\$ 31.42
Exercised	—	—	—	(97,284)	29.69
Vested	(65,104)	37.24	6.98	—	—
Forfeited/expired	(28,566)	36.40	6.82	(31,874)	36.40
Outstanding at June 30, 2019	<u>127,988</u>	<u>\$ 39.38</u>	<u>\$ 7.33</u>	<u>648,285</u>	<u>\$ 31.43</u>
Exercisable/vested at June 30, 2019				<u>520,297</u>	<u>\$ 29.48</u>

The weighted-average remaining contractual terms were 5.2 years for all outstanding stock options and 4.8 years for exercisable stock options at June 30, 2019. The intrinsic value of all outstanding in-the-money stock options and exercisable in-the-money stock options was \$7.5 million and \$6.8 million, respectively, at June 30, 2019. The aggregate intrinsic values of outstanding and exercisable options at June 30, 2019 were calculated based on the closing market price of the Corporation's common stock on June 30, 2019 of \$41.11 per share less the exercise price. Options with intrinsic values less than zero, or "out-of-the-money" options, are not included in the aggregate intrinsic value reported. The total intrinsic value of stock options as of June 30, 2018 and December 31, 2018 was \$19.8 million and \$26.6 million, respectively.

Total cash received from options exercises during the six months ended June 30, 2019 and 2018 was \$338 thousand and \$2.2 million, respectively.

At June 30, 2019, unrecognized compensation expense related to stock options totaled \$901 thousand and is expected to be recognized over a remaining weighted average period of 2.1 years.

**Restricted Stock Units**

The Corporation grants Performance-Based Restricted Stock Units ("PRSUs") and Time-Based Restricted Stock Units ("TRSUs") (collectively referred to as "RSUs") to certain officers from time to time. The PRSUs vest based on the Corporation achieving certain performance target levels and the grantee completing the requisite service period. The PRSUs are eligible to vest from 0.5x to 1.5x the number of units originally granted depending on which, if any, of the performance target levels are met. However, if the minimum performance target levels are not achieved, no shares will become vested or be issued for that respective year's PRSUs. The TRSUs vest upon satisfaction of a service condition. Upon achievement of the performance target level and/or satisfaction of a service condition, as applicable, the RSUs are converted into shares of the Corporation's common stock on a one-to-one basis. Compensation expense related to RSUs is recognized over the expected requisite performance or service period, as applicable.

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A summary of the activity for RSUs as of and for the six months ended June 30, 2019 is presented below:

	Number of Units	Weighted-average grant date fair value per unit
Outstanding at December 31, 2018	576,490	\$ 49.35
Granted	379,260	44.95
Converted into shares of common stock	(123,686)	38.83
Forfeited/expired	(21,406)	50.03
Outstanding at June 30, 2019	810,658	\$ 48.88

At June 30, 2019, unrecognized compensation expense related to RSUs totaled \$27.6 million and is expected to be recognized over a remaining weighted average period of 3.5 years.

### Restricted Stock Awards

The Corporation assumed restricted stock awards in the merger with Talmer that vested upon completion of service requirements. The fair value of these awards is equal to the market price of the Corporation's common stock at the date the awards were assumed with the portion of the fair value related to post-combination service. The Corporation recognizes stock-based compensation expense over the vesting period, using the straight-lined method, based upon the number of shares of restricted stock ultimately expected to vest.

The following table provides information regarding restricted stock awards. All restricted stock awards fully vested during the six months ended June 30, 2019.

Nonvested restricted stock awards	Number of Awards	Weighted-average acquisition-date fair value
Nonvested at January 1, 2019	40,852	\$ 46.23
Vested	(40,852)	46.23
Nonvested at June 30, 2019	—	\$ —

### Note 17: Retirement Plans

The Corporation's retirement plans include a qualified defined benefit pension plan, a nonqualified pension plan, a nonqualified postretirement benefit plan, a 401(k) savings plan, and a multi-employer defined benefit plan.

#### Qualified Defined Benefit Pension Plan

The Chemical Financial Corporation Employees' Pension Plan (the "Pension Plan") is a qualified defined-benefit, noncontributory pension plan, which provides for postretirement pension benefits for certain salaried employees of the Corporation and its subsidiary, Chemical Bank. Benefits under the Pension Plan were partially frozen effective June 30, 2006. Under the partial freeze of the Pension Plan, benefits for employees with less than 15 years of service or whose combined age plus years of service were less than 65 at June 30, 2006, were based on years of vested service at June 30, 2006 and generally the average of the employee's salary for the five years ended June 30, 2006. In addition, no employee hired after January 1, 2006 was eligible to participate in the Pension Plan. Effective September 30, 2017, the Pension and Compensation Committee approved an amendment to the Pension Plan to cease accruing additional benefits under the existing pension benefit formula after the effective date and all accrued benefits were frozen. Retirement benefits under the Pension Plan are based on years of vested service at September 30, 2017, up to a maximum of thirty years, and the employee's average annual pay for the five highest consecutive years during the ten years preceding September 30, 2017, except for employees whose benefits were previously frozen during 2006. On May 7, 2019, the Corporation's board of directors approved the termination of the Pension Plan as of August 31, 2019, subject to revocation if the Merger is not consummated. The fair value of Pension Plan assets exceeds the recorded liability by approximately \$19.0 million at June 30, 2019, which is considered actuarially sufficient for termination purposes.

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Pension Plan benefits are the present value of estimated future periodic payments that are attributable to services rendered by the employees to the valuation date. Benefits include the benefits expected to be paid to (a) retired or terminated employees or their beneficiaries and (b) present employees or their beneficiaries. A discount rate of 4.32% was utilized for the projected benefit obligation as of June 30, 2019. The Pension Plan is fully funded as of June 30, 2019.

**Nonqualified Pension Plan**

The Corporation has a supplemental defined benefit nonqualified pension plan, the Chemical Financial Corporation Supplemental Pension Plan ("SERP"). The Corporation established the SERP to provide payments to certain executive officers of the Corporation, as determined by the Compensation and Pension Committee. The Internal Revenue Code limits both the amount of eligible compensation for benefit calculation purposes and the amount of annual benefits that may be paid from a tax qualified retirement plan. The SERP was designed to provide benefits to executive officers of the Corporation that would have been entitled, calculated under the provisions of the Pension Plan, as if the limits imposed by the Internal Revenue Code did not apply. The SERP is an unfunded plan and, therefore, has no assets.

Effective September 30, 2017, the Pension and Compensation Committee approved a curtailment to the SERP due to the retirement of the final remaining participant in the SERP. As of June 30, 2019, a \$333 thousand liability included in other liabilities was recorded in the Consolidated Statements of Financial Position related to a former participant of the SERP. As of June 30, 2019, the SERP had no active participants.

**Nonqualified Postretirement Benefit Plan**

The Corporation has a nonqualified postretirement benefit plan ("Postretirement Plan") that provides medical and dental benefits, upon retirement, to a limited number of active and retired employees. The majority of the retirees are required to make contributions toward the cost of their benefits based on their years of credited service and age at retirement. Beginning January 1, 2012, the Corporation amended the Postretirement Plan to extend coverage to employees who were at least age 50 as of January 1, 2012. These employees must also retire at age 60 or older, have at least twenty-five years of service with the Corporation and be participating in the active employee group health insurance plan in order to be eligible to participate in the Corporations' Postretirement Plan. Eligible employees may also cover their spouse until age 65 as long as the spouse is not offered health insurance coverage through his or her employer. Employees and their spouses eligible to participate in the Postretirement Plan will be required to make contributions toward the cost of their benefits upon retirement, with the contribution levels designed to cover the projected overall cost of these benefits over the long-term. Retiree contributions are generally adjusted annually. The accounting for these postretirement benefits anticipates changes in future cost-sharing features such as retiree contributions, deductibles, copayments and coinsurance. The Corporation reserves the right to amend, modify or terminate these benefits at any time.



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The components of net periodic benefit cost for the Corporation's qualified and nonqualified pension plans and nonqualified postretirement benefit plan are as follows:

(Dollars in thousands)	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
<b>Defined Benefit Pension Plans</b>				
Interest cost	\$ 1,172	\$ 1,092	\$ 2,345	\$ 2,184
Expected return on plan assets	(2,190)	(2,220)	(4,381)	(4,439)
Amortization of unrecognized net loss	141	178	281	355
Net periodic benefit cost (income) <sup>(1)</sup>	\$ (877)	\$ (950)	\$ (1,755)	\$ (1,900)
<b>Postretirement Benefit Plan</b>				
Service cost <sup>(2)</sup>	\$ —	\$ 1	\$ 1	\$ 1
Interest cost	21	20	43	41
Amortization of unrecognized net gain	(45)	(36)	(90)	(71)
Net periodic benefit cost (income) <sup>(1)</sup>	\$ (24)	\$ (15)	\$ (46)	\$ (29)

<sup>(1)</sup> Net periodic benefit cost (income), excluding service cost is included "Other" operating expenses on the Consolidated Statements of Income.

<sup>(2)</sup> Service cost is included in "Salaries, wages and employee benefits expense" on the Consolidated Statements of Income.

#### **401(k) Savings Plan**

The Corporation's 401(k) Savings Plan is available to all employees and provides employees with tax deferred salary deductions and alternative investment options. Effective January 1, 2018, the Corporation provides a safe harbor matching contribution of the participants elective deferrals up to a maximum of 6.0% of eligible compensation up to the maximum amount allowed under the Internal Revenue Code. The Corporation's match under the 401(k) Savings Plan was \$2.4 million and \$4.8 million for the three and six months ended June 30, 2019, respectively, compared to \$2.0 million and \$4.8 million for the three and six months ended June 30, 2018, respectively.

The 401(k) Savings Plan provides employees with the option to invest in the Corporation's common stock.

#### **Note 18: Regulatory Capital and Reserve Requirements**

Federal and state banking regulations place certain restrictions on the transfer of assets, in the form of dividends, loans, or advances, from Chemical Bank to the Corporation. As of June 30, 2019, substantially all of the assets of Chemical Bank were restricted from transfer to the Corporation in the form of loans or advances. Dividends from Chemical Bank are the principal source of funds for the Corporation. In addition to the statutory limits, the Corporation considers the overall financial and capital position of Chemical Bank prior to making any cash dividend decisions.

The Corporation and Chemical Bank are subject to various regulatory capital requirements administered by federal banking agencies. Under these capital requirements, Chemical Bank must meet specific capital guidelines that involve quantitative measures of assets and certain off-balance sheet items as calculated under regulatory accounting practices. In addition, capital amounts and classifications are subject to qualitative judgments by regulators. Failure to meet minimum capital requirements can initiate certain mandatory and possibly additional discretionary actions by regulators that, if undertaken, could have a direct material effect on the Consolidated Financial Statements. Management believes as of June 30, 2019, the Corporation and Chemical Bank met all capital adequacy requirements to which they are subject.

Quantitative measures established by regulation to ensure capital adequacy require minimum ratios of Tier 1 capital to average assets (Leverage Ratio) and Common Equity Tier 1, Tier 1 and Total capital to risk-weighted assets. These capital guidelines assign risk weights to on- and off-balance sheet items in arriving at total risk-weighted assets. Minimum capital levels are based upon the perceived risk of various asset categories and certain off-balance sheet instruments. Risk-weighted assets for the Corporation and Chemical Bank totaled \$17.02 billion and \$16.99 billion at June 30, 2019, respectively, compared to \$16.10 billion and \$16.07 billion at December 31, 2018, respectively.

**Chemical Financial Corporation**  
**Notes to Consolidated Financial Statements (Unaudited)**  
**June 30, 2019**

Effective January 1, 2015, the Corporation adopted the Basel III regulatory capital framework as approved by federal banking agencies, which was subject to a multi-year phase-in period. The adoption of this new framework modified the calculation of the various capital ratios, added a new ratio, common equity tier 1, and revised the adequately and well capitalized thresholds. In addition, Basel III establishes a new capital conservation buffer of 2.5% of risk-weighted assets, which was phased-in over a multi-year period beginning January 1, 2016. The capital conservation buffer for 2019 is 2.5%, which is now fully phased-in, and was 1.875% for 2018. The Corporation has elected to opt-out of including accumulated other comprehensive income in common equity tier 1 capital.

At June 30, 2019 and December 31, 2018, Chemical Bank's capital ratios exceeded the quantitative capital ratios required for an institution to be considered "well-capitalized." Significant factors that may affect capital adequacy include, but are not limited to, a disproportionate growth in assets versus capital and a change in mix or credit quality of assets. There are no conditions or events since that notification that management believes have changed the institutions' category.

The summary below compares the actual capital amounts and ratios with the quantitative measures established by regulation to ensure capital adequacy:

(Dollars in thousands)	Actual		Minimum Required for Capital Adequacy Purposes Including Capital Conservation Buffer		Required to be Well Capitalized Under Prompt Corrective Action Regulations	
	Capital Amount	Ratio	Capital Amount	Ratio	Capital Amount	Ratio
<b>June 30, 2019</b>						
Total Capital to Risk-Weighted Assets						
Corporation	\$ 1,951,444	11.5%	\$ 1,787,527	10.5%	N/A	N/A
Chemical Bank	1,928,735	11.3	1,784,388	10.5	\$ 1,699,417	10.0%
Tier 1 Capital to Risk-Weighted Assets						
Corporation	1,813,446	10.7	1,447,046	8.5	N/A	N/A
Chemical Bank	1,806,734	10.6	1,444,504	8.5	1,359,534	8.0
Common Equity Tier 1 Capital to Risk-Weighted Assets						
Corporation	1,813,446	10.7	1,191,685	7.0	N/A	N/A
Chemical Bank	1,806,734	10.6	1,189,592	7.0	1,104,621	6.5
Leverage Ratio						
Corporation	1,813,446	8.7	833,418	4.0	N/A	N/A
Chemical Bank	1,806,734	8.7	832,372	4.0	1,040,465	5.0
<b>December 31, 2018</b>						
Total Capital to Risk-Weighted Assets						
Corporation	\$ 1,855,922	11.5 %	\$ 1,590,323	9.9 %	N/A	N/A
Chemical Bank	1,825,742	11.4	1,586,719	9.9	\$ 1,606,804	10.0 %
Tier 1 Capital to Risk-Weighted Assets						
Corporation	1,723,004	10.7	1,268,232	7.9	N/A	N/A
Chemical Bank	1,708,724	10.6	1,265,358	7.9	1,285,444	8.0
Common Equity Tier 1 Capital to Risk-Weighted Asset						
Corporation	1,723,004	10.7	1,026,664	6.4	N/A	N/A
Chemical Bank	1,708,724	10.6	1,024,338	6.4	1,044,423	6.5
Leverage Ratio						
Corporation	1,723,004	8.7	793,669	4.0	N/A	N/A
Chemical Bank	1,708,724	8.6	792,184	4.0	990,230	5.0

**Chemical Financial Corporation**  
**Notes to Consolidated Financial Statements (Unaudited)**  
**June 30, 2019**

**Note 19: Earnings Per Common Share**

The two-class method is used in the calculation of basic and diluted earnings per share. Under the two-class method, earnings available to common shareholders for the period are allocated between common shareholders and participating securities according to dividends declared (or accumulated) and participating rights in undistributed earnings.

Average shares of common stock for diluted net income per common share include shares to be issued upon the exercise of stock options granted under the Corporation's share-based compensation plans, restricted stock units that may be converted to stock, restricted stock awards and stock to be issued under the deferred stock compensation plan for non-employee directors.

The factors used in the earnings per share computation follow:

(In thousands, except per share data)	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Net income	\$ 69,594	\$ 68,988	\$ 132,536	\$ 140,584
Net income allocated to participating securities	—	40	24	105
Net income allocated to common shareholders <sup>(1)</sup>	<u>\$ 69,594</u>	<u>\$ 68,948</u>	<u>\$ 132,512</u>	<u>\$ 140,479</u>
Weighted average common shares - issued	<u>71,554</u>	<u>71,371</u>	<u>71,526</u>	<u>71,334</u>
Average unvested restricted share awards	—	(42)	(12)	(54)
Weighted average common shares outstanding - basic	<u>71,554</u>	<u>71,329</u>	<u>71,514</u>	<u>71,280</u>
Effect of dilutive securities				
Weighted average common stock equivalents	<u>718</u>	<u>697</u>	<u>693</u>	<u>686</u>
Weighted average common shares outstanding - diluted	<u><u>72,272</u></u>	<u><u>72,026</u></u>	<u><u>72,207</u></u>	<u><u>71,966</u></u>
EPS available to common shareholders				
Basic earnings per common share	<u>\$ 0.97</u>	<u>\$ 0.97</u>	<u>\$ 1.85</u>	<u>\$ 1.97</u>
Diluted earnings per common share	<u>\$ 0.96</u>	<u>\$ 0.96</u>	<u>\$ 1.84</u>	<u>\$ 1.95</u>

<sup>(1)</sup> Net income allocated to common shareholders for basic and diluted earnings per share may differ under the two-class method as a result of adding common share equivalents for options to dilutive shares outstanding, which alters the ratio used to allocate net income to common shareholders and participating securities for the purposes of calculating diluted earnings per share.

For the effect of dilutive securities, the average stock valuation is \$41.46 per share and \$56.46 per share for the three months ended June 30, 2019 and 2018, respectively, and \$42.33 per share and \$56.35 per share for the six months ended June 30, 2019 and 2018, respectively.

The average number of exercisable employee stock option awards outstanding that were "out-of-the-money," whereby the option exercise price per share exceeded the market price per share and, therefore, were not included in the computation of diluted earnings per common share because they would have been anti-dilutive totaled 41,695 and 46,940 for the three and six months ended June 30, 2019, respectively, and 59,303 and 65,114 for the three and six months ended June 30, 2018, respectively.

**Chemical Financial Corporation**  
**Notes to Consolidated Financial Statements (Unaudited)**  
**June 30, 2019**

**Note 20: Accumulated Other Comprehensive Loss**

The following table summarizes the changes within each component of accumulated other comprehensive income (loss), net of related tax benefit/expense for the three and six months ended June 30, 2019, and 2018:

(Dollars in thousands)	Unrealized gains (losses) on securities carried at fair value, net of tax	Defined Benefit Pension Plan, net of tax	Unrealized gains (losses) on cash flow hedges, net of tax	Total
<b>For the three months ended June 30, 2019</b>				
Beginning balance at April 1, 2019	\$ (8,260)	\$ (28,691)	\$ (1,556)	\$ (38,507)
Other comprehensive income (loss) before reclassifications	29,079	—	(16,771)	12,308
Amounts reclassified from accumulated other comprehensive income (loss)	(3,286)	76	(992)	(4,202)
Net current period other comprehensive income (loss)	25,793	76	(17,763)	8,106
Ending balance	<u>\$ 17,533</u>	<u>\$ (28,615)</u>	<u>\$ (19,319)</u>	<u>\$ (30,401)</u>
<b>For the three months ended June 30, 2018</b>				
Beginning balance at April 1, 2018	\$ (32,501)	\$ (19,696)	\$ 11,143	\$ (41,054)
Other comprehensive income (loss) before reclassifications	(9,182)	—	3,240	(5,942)
Amounts reclassified from accumulated other comprehensive income (loss)	(2)	112	(465)	(355)
Net current period other comprehensive income (loss)	(9,184)	112	2,775	(6,297)
Ending balance	<u>\$ (41,685)</u>	<u>\$ (19,584)</u>	<u>\$ 13,918</u>	<u>\$ (47,351)</u>
<b>For the six months ended June 30, 2019</b>				
Beginning balance at January 1, 2019	\$ (37,772)	\$ (28,766)	\$ 5,428	\$ (61,110)
Other comprehensive income (loss) before reclassifications	58,660	—	(22,737)	35,923
Amounts reclassified from accumulated other comprehensive income (loss)	(3,355)	151	(2,010)	(5,214)
Net current period other comprehensive income (loss)	55,305	151	(24,747)	30,709
Ending balance	<u>\$ 17,533</u>	<u>\$ (28,615)</u>	<u>\$ (19,319)</u>	<u>\$ (30,401)</u>
<b>For the six months ended June 30, 2018</b>				
Beginning balance at December 31, 2017	\$ (10,348)	\$ (19,808)	\$ 4,658	\$ (25,498)
Cumulative effect adjustment of change in accounting policy, net of tax impact <sup>(1)</sup>	\$ (344)	\$ —	\$ 3	\$ (341)
Beginning balance at January 1, 2018	(10,692)	(19,808)	4,661	(25,839)
Other comprehensive income (loss) before reclassifications	(30,991)	—	9,531	(21,460)
Amounts reclassified from accumulated other comprehensive income (loss)	(2)	224	(274)	(52)
Net current period other comprehensive income (loss)	(30,993)	224	9,257	(21,512)
Ending balance	<u>\$ (41,685)</u>	<u>\$ (19,584)</u>	<u>\$ 13,918</u>	<u>\$ (47,351)</u>

<sup>(1)</sup> Refer to Note 1, Basis of Presentation and Significant Accounting Policies for further details on the adoption of ASU 2016-01 and ASU 2017-12.

**Chemical Financial Corporation**  
**Notes to Consolidated Financial Statements (Unaudited)**  
**June 30, 2019**

The following table summarizes the amounts reclassified out of each component of accumulated other comprehensive income (loss) for the three and six months ended June 30, 2019, and 2018:

(Dollars in thousands)	Amounts Reclassified from Accumulated Other Comprehensive Income (Loss)				Affected Line Item in the Income Statement
	Three Months Ended June 30,		Six Months Ended June 30,		
	2019	2018	2019	2018	
Gains and losses on investment securities carried at fair value	\$ 4,160	\$ 3	\$ 4,247	\$ 3	Net gain on sale of investment securities (noninterest income)
	(874)	(1)	(892)	(1)	Income tax expense
	<u>\$ 3,286</u>	<u>\$ 2</u>	<u>\$ 3,355</u>	<u>\$ 2</u>	Net Income
Amortization of defined benefit pension plan items	\$ 96	\$ 142	\$ 191	\$ 284	Salaries, wages and employee benefits (operating expenses)
	(20)	(30)	(40)	(60)	Income tax expense
	<u>\$ 76</u>	<u>\$ 112</u>	<u>\$ 151</u>	<u>\$ 224</u>	Net Loss
Gains and losses on cash flow hedges	\$ (1,256)	\$ (589)	\$ (2,544)	\$ (347)	Interest on short-term borrowings (interest expense)
	264	124	534	73	Income tax benefit
	<u>\$ (992)</u>	<u>\$ (465)</u>	<u>\$ (2,010)</u>	<u>\$ (274)</u>	Net Income

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

The following is management's discussion and analysis of certain significant factors that have affected our financial condition and results of operations during the periods included in the Consolidated Financial Statements included in this report. This discussion should be read in conjunction with our Consolidated Financial Statements and accompanying footnotes appearing in this report and in conjunction with the financial statements and related notes and disclosures in our 2018 Annual Report on Form 10-K.

In this report, unless the context suggests otherwise, references to the "Corporation," "we," "us," and "our" mean the combined business of Chemical Financial Corporation and its subsidiary bank, Chemical Bank (the "Bank").

We have made, and will continue to make, various forward-looking statements with respect to financial and business matters. Comments regarding our business that are not historical facts are considered forward-looking statements that involve inherent risks and uncertainties. Actual results may differ materially from those contained in these forward-looking statements. For additional information regarding our cautionary disclosure, see the *"Cautionary Note Regarding Forward-Looking Statements"* on page 3 of this report.

### **Business Overview**

Chemical Financial Corporation ("Chemical"), headquartered in Detroit, Michigan, is a financial holding company registered under the Bank Holding Company Act of 1956, as amended, incorporated in the State of Michigan in August 1973. Our common stock is listed on NASDAQ under the symbol "CHFC." On June 30, 1974, we acquired Chemical Bank and Trust Company pursuant to a reorganization in which the former shareholders of Chemical Bank and Trust Company became shareholders of the Corporation. We changed the name of Chemical Bank and Trust Company to Chemical Bank on December 31, 2005. At June 30, 2019, we had consolidated total assets of \$22.49 billion, total loans of \$15.86 billion, total deposits of \$15.88 billion and total shareholders' equity of \$2.95 billion, respectively.

Since our acquisition of Chemical Bank and Trust Company and through June 30, 2019, we have acquired 25 community banks and 36 other branch bank offices. Our most recent transactions include our merger with Talmer Bancorp, Inc. ("Talmer") during the third quarter of 2016, and our acquisitions of Lake Michigan Financial Corporation ("Lake Michigan") and Monarch Community Bancorp, Inc. ("Monarch") during the second quarter of 2015.

Our business is concentrated in a single industry segment, commercial banking, which is conducted through our single commercial bank subsidiary, Chemical Bank. We offer a full range of traditional banking and fiduciary products and services to residents and business customers in our geographical areas. These products and services include business and personal checking accounts, savings and individual retirement accounts, time deposit instruments, electronically accessed banking products, residential and commercial real estate financing, commercial lending, consumer financing, debit cards, safe deposit box services, money transfer services, automated teller machines, access to insurance and investment products, corporate and personal wealth management services, mortgage banking and other banking services. In addition, we own, directly or indirectly, various non-bank operating and non-operating subsidiaries.

### **Pending Merger with TCF Financial Corporation**

Chemical and TCF Financial Corporation ("TCF") have entered into an Agreement and Plan of Merger, dated as of January 27, 2019, which we refer to as the "merger agreement." Under the merger agreement, Chemical and TCF have agreed to combine their respective companies in a merger of equals, pursuant to which TCF will merge with and into Chemical, with Chemical continuing as the surviving entity. Immediately following the merger, Chemical Bank will merge with and into TCF National Bank, with TCF National Bank as the surviving bank. The merger agreement was approved by the boards of directors of Chemical and TCF. Both companies' shareholders have approved the merger and all necessary regulatory approvals have also been obtained. We expect the merger to close on August 1, 2019, subject to satisfaction of customary closing conditions. The transaction is discussed in more detail in Note 2, Mergers to our Consolidated Financial Statements included in this report.

## **Critical Accounting Policies**

Our Consolidated Financial Statements are prepared in accordance with United States generally accepted accounting principles ("GAAP"), Securities and Exchange Commission ("SEC") rules and interpretive releases and general practices within the industry in which we operate. Application of these principles requires management to make estimates, assumptions and complex judgments that affect the amounts reported in our Consolidated Financial Statements and accompanying notes. These estimates, assumptions and judgments are based on information available as of the date of the financial statements; accordingly, as this information changes, our Consolidated Financial Statements could reflect different estimates, assumptions and judgments. Actual results could differ significantly from those estimates. Certain policies inherently have a greater reliance on the use of estimates, assumptions and judgments and, as such, have a greater possibility of producing results that could be materially different than originally reported. We use third-party sources to assist us with developing estimates, assumptions and judgments regarding certain amounts reported in our Consolidated Financial Statements and accompanying notes. When we use third-party sources, our management remains responsible for complying with GAAP. To execute management's responsibilities, we have processes in place to develop an understanding of the third-party methodologies and to design and implement specific internal controls over valuation.

We have identified the determination of the allowance for loan losses, accounting for acquired loans, income and other taxes and the valuation of loan servicing rights to be the accounting areas that require the most subjective or complex judgments and, as such, could be most subject to revision as new or additional information becomes available or circumstances change, including overall changes in the economic climate and/or market interest rates. Therefore, we consider them to be critical accounting policies and discuss them directly with the Audit Committee of the board of directors.

Our significant accounting policies are more fully described in Note 1 to the audited Consolidated Financial Statements contained in our Annual Report on Form 10-K for the year ended December 31, 2018, and the more significant assumptions and estimates made by us are more fully described in "Management's Discussion and Analysis of Financial Condition and Results of Operations - Critical Accounting Policies" in our Annual Report on Form 10-K for the year ended December 31, 2018. There were no material changes to our significant accounting policies or the estimates made pursuant to those policies during the most recent quarter.

## **Accounting Standards Updates**

See Note 1 to our Consolidated Financial Statements included in this report for details of accounting pronouncements adopted during the six months ended June 30, 2019 and the year ended December 31, 2018. See the following section for a description of pronouncements that have been released but not yet adopted.

## Pending Accounting Pronouncements

Standard	Description/Required Date of Adoption	Expected impact on the financial statements and other significant matters
ASU No. 2016-13 - Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments	<p>This standard amends the guidance on reporting credit losses for financial assets held at amortized cost basis and available for sale debt securities. For assets held at amortized cost basis, Topic 326 eliminates the probable initial recognition threshold in current GAAP and, instead, requires an entity to reflect its current estimate of all expected credit losses. The allowance for credit losses is a valuation account that is deducted from the amortized cost basis of the financial assets to present the net amount expected to be collected. For available for sale debt securities, credit losses should be measured in a manner similar to current GAAP; however, Topic 326 will require that credit losses be presented as an allowance rather than as a write-down. The measurement of expected credit loss should be based on relevant information about past events, current conditions, and reasonable forecasts. An allowance will be recognized for purchased credit-deteriorated assets through a gross-up approach measuring the amortized cost as the sum of the purchase price and estimated credit loss at the acquisition date. Adjustments in allowance will be recognized immediately in earnings. The newly required disclosures include both qualitative and quantitative information about an entity's financial assets and the allowance for credit losses, including among others: (a) how an entity developed its allowance for financial assets measured at amortized cost, (b) information about the credit quality for financial receivables and net investments in leases measured at amortized cost, and (c) an allowance roll-forward for available-for-sale securities and an aging analysis for securities past due.</p> <p>The amendments in the 2018 update clarify that receivables arising from operating leases are not within the scope of Subtopic 326-20. Instead, impairment of receivables arising from operating leases should be accounted for in accordance with Topic 842.</p>	<p>We are currently evaluating the potential impact the adoption of ASU 2016-13 will have on our consolidated financial statements and disclosures. A cross-functional working group comprised of individuals from various functional areas across the organization has been formed. In addition, we have been working with an industry leading vendor and using their software program to develop a model to determine the expected credit losses in our loan portfolio. Starting in the fourth quarter of 2018, we began developing and refining multiple scenarios and identifying portfolio segmentation. We have continued this process into 2019. Additional steps have included running a parallel analysis with our current credit loss model followed by model validation procedures. While we are currently unable to reasonably estimate the impact of adopting ASU 2016-13, we expect that the impact of adoption could be significantly influenced by the composition, characteristics and quality of our loan portfolio as well as the prevailing economic conditions and forecasts as of the adoption date. Upon adoption, a cumulative-effect adjustment to retained earnings will be recorded as of the beginning of the first reporting period in which the guidance is effective.</p>
ASU No. 2018-19 - Codification Improvements to Topic 326, Financial Instruments: Credit Losses	<p>Required adoption date of January 1, 2020.</p>	
ASU No. 2017-04, Intangible - Goodwill and Other (Topic 350)	<p>Accounting for goodwill impairment is simplified by removing Step 2 of the goodwill impairment test, which requires a hypothetical purchase price allocation. Subsequent to the adoption, goodwill impairment will be the amount by which a reporting unit's carrying value exceeds its fair value, not to exceed the carrying amount of goodwill. All other goodwill impairment guidance largely remains unchanged.</p>	<p>Adoption is not expected to have a material impact on our consolidated financial condition or results of operations.</p>
ASU 2018-13, Fair Value Measurement (Topic 820): Disclosure Framework - Changes to the Disclosure Requirements for Fair Value Measurement	<p>Required adoption date of January 1, 2020, with early adoption permitted. Currently, we do not have plans for early adoption.</p> <p>The amendments in this update improve the effectiveness of fair value measurement disclosures and modifies the disclosure requirements on fair value measurements in Topic 820, Fair Value Measurement based on the concepts in the Concept Statement, Conceptual Framework for Financial Reporting - Chapter 8: Notes to Financial Statements, including considerations of costs and benefits.</p> <p>The additional disclosure requirements include disclosing the change in unrealized gains (losses) for recurring Level 3 fair value measurements held at the end of the reporting period and the range and weighted average of significant unobservable inputs used to develop Level 3 fair value measurements or other quantitative information. The update also removes the disclosure requirements for: the amount of and reasons for transfers between Level 1 and Level 2 hierarchies, the policy for timing of transfers between levels, and the valuation processes for Level 3 fair value measurements.</p>	<p>Adoption is not expected to have a material impact on our consolidated financial condition or results of operations.</p>
ASU 2018-13, Fair Value Measurement (Topic 820): Disclosure Framework - Changes to the Disclosure Requirements for Fair Value Measurement	<p>Required adoption date of January 1, 2020, with early adoption permitted. Currently, we do not have plans for early adoption.</p>	



Standard	Description/Required Date of Adoption	Expected impact on the financial statements and other significant matters
ASU 2018-14, Compensation - Retirement Benefits - Defined Benefit Plans - General (Subtopic 715-20): Disclosure Framework - Changes to the Disclosure Requirements for Defined Benefit Plans	The amendments in this update remove disclosures that no longer are considered cost-beneficial, clarify the specific requirements of disclosures, and add disclosure requirements identified as relevant based on the concepts in the Concepts Statement, Conceptual Framework for Financial Reporting-Chapter 8: Notes to Financial Statements.  Required adoption date of January 1, 2021, with early adoptions permitted. Currently, we do not have plans for early adoption.	Adoption is not expected to have a material impact on our consolidated financial condition or results of operations.
ASU 2019-04, Codification Improvements to Topic 326, Financial Instruments - Credit Losses, Topic 815, Derivatives and Hedging, and Topic 825, Financial Instruments	The amendments in this update clarify and make improvements to the new guidance on credit losses, hedging, and recognizing and measuring financial instruments. The amendments clarify the scope of the credit losses standard and address issues related to accrued interest receivable balances, recoveries, variable interest rates and prepayments, and other. The amendments related to hedge accounting address partial-term fair value hedges, fair value hedge basis adjustments, application by not-for-profit entities and private companies, and certain transition requirements.  As we have not yet adopted ASU 2016-13, but have adopted ASU 2017-12 and ASU 2016-01, the required adoption date for all amendments in this update are January 1, 2020, with early adoption permitted. Currently, we do not have plans for early adoption.	Adoption of these updates along with ASU 2016-13 will have a material impact on our consolidated financial condition and results of operations. Refer to the ASU 2016-13 update above for more information.  The remaining amendments are not expected to have a material impact on our consolidated financial condition or results of operations.
ASU 2019-05, Financial Instruments - Credit Losses (Topic 326): Targeted Transition Relief	The amendments in this update provide entities with certain instruments within the scope of Subtopic 326-20, with an option to irrevocably elect the fair value option. This option does not apply to held-to-maturity debt securities and should subsequently be applied.  As we have not yet adopted ASU 2016-13, the required adoption date and transition methodology are the same as ASU 2016-13, i.e. January 1, 2020, with early adoption permitted. Currently, we do not have plans for early adoption of ASU 2016-13.	We are currently evaluating the potential impact of the adoption of ASU 2016-13 will have on our consolidated financial statements and disclosures. Refer to the ASU 2016-13 update above for more information.

## Selected Financial Information

The following table sets forth our selected financial information for the periods and as of the dates indicated. You should read this information together with Management's Discussion and Analysis of Financial Condition and Results of Operations and our Consolidated Financial Statements and the related notes thereto, which are included elsewhere in this report. As noted in the following table, we have included certain non-GAAP financial measures, which should be read in conjunction with the section entitled "Non-GAAP Financial Measures" and the accompanying table entitled "Reconciliation of Non-GAAP Operating Results," for reconciliation of non-GAAP measures to the most directly comparable GAAP financial measure. Our results shown in the following table and elsewhere in this report are not necessarily indicative of our future performance.

**Chemical Financial Corporation**  
**Selected Financial Information**  
(Unaudited)

(Dollars in thousands, except per share data)	Three Months Ended			Six Months Ended	
	June 30, 2019	March 31, 2019	June 30, 2018	June 30, 2019	June 30, 2018
<b>Summary of Operations</b>					
Interest income	\$ 221,428	\$ 213,981	\$ 189,582	\$ 435,409	\$ 367,516
Interest expense	56,267	51,157	32,045	107,424	58,116
Net interest income	165,161	162,824	157,537	327,985	309,400
Provision for loan losses	7,502	2,059	9,572	9,561	15,828
Net interest income after provision for loan losses	157,659	160,765	147,965	318,424	293,572
Noninterest income	38,164	24,857	38,018	63,021	78,572
Operating expenses, core (non-GAAP) <sup>(1)(2)</sup>	107,690	103,591	102,845	211,281	202,821
Merger expenses	3,042	5,424	—	8,466	—
Impairment of income tax credits	271	—	1,716	271	3,350
Income before income taxes	84,820	76,607	81,422	161,427	165,973
Income tax expense	15,226	13,665	12,434	28,891	25,389
Net income	\$ 69,594	\$ 62,942	\$ 68,988	\$ 132,536	\$ 140,584
Significant items, net of tax (non-GAAP) <sup>(1)(3)</sup>	6,714	10,326	23	17,040	(2,941)
Net income, excluding significant items (non-GAAP) <sup>(1)(3)</sup>	\$ 76,308	\$ 73,268	\$ 69,011	\$ 149,576	\$ 137,643
<b>Per Common Share Data</b>					
Net income:					
Basic	\$ 0.97	\$ 0.88	\$ 0.97	\$ 1.85	\$ 1.97
Diluted	0.96	0.87	0.96	1.84	1.95
Diluted, excluding significant items (non-GAAP) <sup>(1)(3)</sup>	1.06	1.02	0.96	2.07	1.91
Cash dividends declared	0.34	0.34	0.28	0.68	0.56
Book value at end of period	41.27	40.50	38.52	41.27	38.52
Tangible book value per share at end of period (non-GAAP) <sup>(1)</sup>	25.18	24.39	22.33	25.18	22.33
Market value at end of period	41.11	41.16	55.67	41.11	55.67
<b>Key Ratios (annualized where applicable)</b>					
Net interest margin	3.31%	3.38%	3.54%	3.35%	3.53%
Net interest margin (fully taxable equivalent) (non-GAAP) <sup>(1)(4)</sup>	3.36%	3.42%	3.59%	3.39%	3.58%
Efficiency ratio (GAAP)	54.6%	58.1%	53.5%	56.3%	53.1%
Efficiency ratio-adjusted (non-GAAP) <sup>(1)</sup>	51.3%	51.7%	51.2%	51.5%	51.4%
Return on average assets	1.27%	1.17%	1.39%	1.22%	1.43%
Return on average assets, excluding significant items (non-GAAP) <sup>(1)(3)</sup>	1.39%	1.36%	1.39%	1.37%	1.40%
Return on average shareholders' equity	9.5%	8.8%	10.2%	9.2%	10.5%
Return on average tangible shareholders' equity (non-GAAP) <sup>(1)</sup>	15.7%	14.8%	17.8%	15.3%	18.4%
Return on average tangible shareholders' equity, excluding significant items (non-GAAP) <sup>(1)(3)</sup>	17.3%	17.2%	17.8%	17.2%	18.0%
Average shareholders' equity as a percent of average assets	13.3%	13.3%	13.6%	13.3%	13.7%
Capital ratios (period end):					
Tangible shareholders' equity as a percent of tangible assets (non-GAAP) <sup>(1)</sup>	8.4%	8.5%	8.3%	8.4%	8.3%
Total risk-based capital ratio	11.5%	11.7%	11.4%	11.5%	11.4%

(1) Denotes a non-GAAP Financial Measure. Please refer to section entitled "Non-GAAP Financial Measures" included within this Management's Discussion and Analysis of Financial Condition and Results of Operations for a reconciliation to the most directly comparable GAAP financial measure.

(2) Excludes merger expenses and impairment of income tax credits.

(3) "Significant items" are defined to be the change in fair value of loan servicing rights and merger expenses.

(4) Presented on a tax equivalent basis using a 21% tax rate for each period presented.

## Non-GAAP Financial Measures

This report contains references to financial measures that are not defined in GAAP. Such non-GAAP financial measures include our operating expenses, core (which excludes merger expenses and impairment of income tax credits); tangible book value per share; tangible shareholders' equity; presentation of net interest income and net interest margin on a fully taxable equivalent ("FTE") basis; operating expenses and efficiency ratio (which excludes merger expenses, the change in fair value of loan servicing rights, gains from sale of investment securities, impairment of income tax credits and amortization of intangibles); the adjusted efficiency ratio and the adjusted total operating expenses as a percentage of total average assets (which both exclude merger expenses, impairment of income tax credits, amortization of intangibles, net interest FTE adjustments, the change in fair value of loan servicing rights and net gains from sale of investment securities) and other information presented excluding significant items, net of tax (defined as merger expenses and the change in fair value of loan servicing rights) including net income, diluted earnings per share, return on average assets, return on average shareholders' equity and return on average tangible shareholders' equity. Management believes that the presentation of these non-GAAP financial measures (a) provides important supplemental information that contributes to a proper understanding of our operating performance, (b) enables a more complete understanding of factors and trends affecting our business, and (c) allows investors to evaluate our performance in a manner similar to management, the financial services industry, bank stock analysts, and bank regulators. Management uses non-GAAP measures as follows: in the preparation of our operating budgets, monthly financial performance reporting, and in our presentation to investors of our performance. Limitations associated with non-GAAP financial measures include the risk that persons might disagree as to the appropriateness of items comprising these measures and that different companies might calculate these measures differently. These disclosures should not be considered an alternative to our GAAP results.

A reconciliation of non-GAAP financial measures to the most directly comparable GAAP financial measures is presented below. A reconciliation of net interest income and net interest margin (FTE) to the most directly comparable GAAP financial measure can be found under the subheading "Average Balances, Fully Taxable Equivalent (FTE) Interest and Effective Yields and Rates" of this report.

(Dollars in thousands, except per share data)	Three Months Ended			Six Months Ended	
	June 30, 2019	March 31, 2019	June 30, 2018	Jun 30, 2019	Jun 30, 2018
<b>Reconciliation of Non-GAAP Operating Results</b>					
<b>Net Income</b>					
Net income, as reported	\$ 69,594	\$ 62,942	\$ 68,988	\$ 132,536	\$ 140,584
Merger expenses	3,042	5,424	—	8,466	—
Loan servicing rights change in fair value (gains) losses	5,457	7,646	30	13,103	(3,722)
Significant items	8,499	13,070	30	21,569	(3,722)
Income tax benefit <sup>(1)</sup>	(1,785)	(2,744)	(7)	(4,529)	781
Significant items, net of tax	6,714	10,326	23	17,040	(2,941)
Net income, excluding significant items	\$ 76,308	\$ 73,268	\$ 69,011	\$ 149,576	\$ 137,643
<b>Diluted Earnings Per Share</b>					
Diluted earnings per share, as reported	\$ 0.96	\$ 0.87	\$ 0.96	\$ 1.84	\$ 1.95
Effect of significant items, net of tax	0.10	0.15	—	0.23	(0.04)
Diluted earnings per share, excluding significant items	\$ 1.06	\$ 1.02	\$ 0.96	\$ 2.07	\$ 1.91
<b>Return on Average Assets</b>					
Return on average assets, as reported	1.27%	1.17%	1.39%	1.22%	1.43%
Effect of significant items, net of tax	0.12	0.19	—	0.15	(0.03)
Return on average assets, excluding significant items	1.39%	1.36%	1.39%	1.37%	1.40%
<b>Return on Average Shareholders' Equity</b>					
Return on average shareholders' equity, as reported	9.5%	8.8%	10.2%	9.2%	10.5%
Effect of significant items, net of tax	1.0	1.5	—	1.2	(0.3)
Return on average shareholders' equity, excluding significant items	10.5%	10.3%	10.2%	10.4%	10.2%
<b>Return on Average Tangible Shareholders' Equity</b>					
Average shareholders' equity	\$ 2,920,211	\$ 2,855,715	\$ 2,707,346	\$ 2,888,142	\$ 2,687,943
Average goodwill, CDI and noncompete agreements, net of tax	1,152,110	1,153,275	1,156,877	1,152,689	1,157,482
Average tangible shareholders' equity	\$1,768,101	\$1,702,440	\$1,550,469	\$1,735,453	\$1,530,461
Return on average tangible shareholders' equity	15.7%	14.8%	17.8%	15.3%	18.4%
Effect of significant items, net of tax	1.6	2.4	—	1.9	(0.4)
Return on average tangible shareholders' equity, excluding significant items	17.3%	17.2%	17.8%	17.2%	18.0%
<b>Efficiency Ratio and Operating Expenses</b>					
Net interest income	\$ 165,161	\$ 162,824	\$ 157,537	\$ 327,985	\$ 309,400
Noninterest income	38,164	24,857	38,018	63,021	78,572
Total revenue - GAAP	203,325	187,681	195,555	391,006	387,972
Net interest income FTE adjustment	2,671	2,662	2,331	5,332	4,558
Loan servicing rights change in fair value (gains) losses	5,457	7,646	30	13,103	(3,722)
Gains from sale of investment securities	(4,160)	(87)	(3)	(4,247)	(3)
Total revenue - Non-GAAP	\$ 207,293	\$ 197,902	\$ 197,913	\$ 405,194	\$ 388,805
Operating expenses - GAAP	\$ 111,003	\$ 109,015	\$ 104,561	\$ 220,018	\$ 206,171
Merger expenses	(3,042)	(5,424)	—	(8,466)	—
Impairment of income tax credits	(271)	—	(1,716)	(271)	(3,350)
Operating expense, core - Non-GAAP	107,690	103,591	102,845	211,281	202,821
Amortization of intangibles	(1,360)	(1,361)	(1,425)	(2,721)	(2,864)
Operating expenses, efficiency ratio - Non-GAAP	\$ 106,330	\$ 102,230	\$ 101,420	\$ 208,560	\$ 199,957
Efficiency ratio - GAAP	54.6%	58.1%	53.5%	56.3%	53.1%
Efficiency ratio - adjusted Non-GAAP	51.3%	51.7%	51.2%	51.5%	51.4%

(1) Assumes significant items are deductible at an income tax rate of 21% for each period.

(Dollars in thousands, except per share data)	Three Months Ended			Six Months Ended	
	June 30, 2019	March 31, 2019	June 30, 2018	June 30, 2019	June 30, 2018
<b>Total operating expenses as a percentage of total average assets (annualized)</b>					
Average assets	\$ 22,005,495	\$ 21,514,998	\$ 19,850,993	\$ 21,761,602	\$ 19,655,521
Operating expenses - GAAP	\$ 111,003	\$ 109,015	\$ 104,561	\$ 220,018	\$ 206,171
Merger expenses	(3,042)	(5,424)	—	(8,466)	—
Impairment of income tax credits	(271)	—	(1,716)	(271)	(3,350)
Operating expense, core - Non-GAAP	\$ 107,690	\$ 103,591	\$ 102,845	\$ 211,281	\$ 202,821
Total operating expenses as a percentage of total average assets (annualized)	2.0%	2.0%	2.1%	2.0%	2.1%
Total operating expenses as a percentage of total average assets - adjusted non-GAAP (annualized)	2.0%	1.9%	2.1%	1.9%	2.1%

(Dollars in thousands, except per share data)	June 30, 2019	March 31, 2019	December 31, 2018	June 30, 2018
<b>Tangible Book Value</b>				
Shareholders' equity, as reported	\$ 2,953,535	\$ 2,897,509	\$ 2,836,260	\$ 2,750,999
Goodwill, CDI and noncompete agreements, net of tax	(1,151,532)	(1,152,705)	(1,153,877)	(1,156,307)
Tangible shareholders' equity	\$ 1,802,003	\$ 1,744,804	\$ 1,682,383	\$ 1,594,692
Common shares outstanding	71,559	71,551	71,460	71,418
Book value per share (shareholders' equity, as reported, divided by common shares outstanding)	\$ 41.27	\$ 40.50	\$ 39.69	\$ 38.52
Tangible book value per share (tangible shareholders' equity divided by common shares outstanding)	\$ 25.18	\$ 24.39	\$ 23.54	\$ 22.33
<b>Tangible Shareholders' Equity to Tangible Assets</b>				
Total assets, as reported	\$ 22,491,765	\$ 21,800,313	\$ 21,498,341	\$ 20,282,603
Goodwill, CDI and noncompete agreements, net of tax	(1,151,532)	(1,152,705)	(1,153,877)	(1,156,307)
Tangible assets	\$ 21,340,233	\$ 20,647,608	\$ 20,344,464	\$ 19,126,296
Shareholders' equity to total assets	13.1%	13.3%	13.2%	13.6%
Tangible shareholders' equity to tangible assets	8.4%	8.5%	8.3%	8.3%

## Statements of Financial Position Review

### Overview

Total assets were \$22.49 billion at June 30, 2019, an increase of \$993.4 million, or 4.6%, from total assets of \$21.50 billion at December 31, 2018. The increase in total assets during the six months ended June 30, 2019 was primarily attributable to net loan growth and additions to our investment securities portfolio.

Average assets were \$22.01 billion during the three months ended June 30, 2019, an increase of \$2.15 billion, or 10.8%, compared to average assets of \$19.85 billion during the three months ended June 30, 2018. Average assets were \$21.76 billion during the six months ended June 30, 2019, an increase of \$2.10 billion, or 10.7%, from average assets of \$19.66 billion during the six months ended June 30, 2018. The increase in average assets during both the three and six months ended June 30, 2019, compared to both the three and six months ended June 30, 2018, was primarily attributable to loan growth and an increase in our investment securities portfolio which is reflective of our long-term plan to increase our investment securities portfolio as a percentage of total assets.

Total liabilities were \$19.54 billion at June 30, 2019, an increase of \$876.1 million, or 4.7%, compared to total liabilities at December 31, 2018 of \$18.66 billion. The increase in liabilities during the six months ended June 30, 2019 was primarily attributable to increases of \$580.0 million in short-term borrowings and \$286.2 million in deposits.

## Investment Securities

The following tables summarize the maturities and yields of the carrying value of debt securities by investment category, and fair value by investment category, at June 30, 2019 and December 31, 2018:

	Maturity as of June 30, 2019 <sup>(1)</sup>								Total Carrying Value <sup>(2)</sup>		Total Fair Value
	Within One Year		After One but Within Five Years		After Five but Within Ten Years		After Ten Years				
(Dollars in thousands)	Amount	Yield <sup>(3)</sup>	Amount	Yield <sup>(3)</sup>	Amount	Yield <sup>(3)</sup>	Amount	Yield <sup>(3)</sup>	Amount	Yield <sup>(3)</sup>	
<b>Carried at Fair Value:</b>											
Government and government-sponsored enterprises	\$ 41,173	3.34%	\$ 126,007	3.23%	\$ 86,456	3.17%	\$ 42,090	3.31%	\$ 295,726	3.24%	\$ 295,726
State and political subdivisions	2,474	3.11	13,355	1.82	121,130	2.29	307,126	3.94	444,085	3.42	444,085
Residential mortgage-backed securities	103,075	2.85	165,602	2.82	57,931	2.75	27,014	2.84	353,622	2.82	353,622
Collateralized mortgage obligations	620,024	2.60	927,347	2.65	291,434	2.91	100,890	3.26	1,939,695	2.71	1,939,695
Corporate bonds	17,315	2.65	65,153	3.10	206,844	3.80	—	—	289,312	3.57	289,312
Trust preferred securities	—	—	—	—	45,970	4.07	1,462	2.06	47,432	4.00	47,432
Total debt securities carried at fair value	<b>784,061</b>	<b>2.67</b>	<b>1,297,464</b>	<b>2.74</b>	<b>809,765</b>	<b>3.12</b>	<b>478,582</b>	<b>3.67</b>	<b>3,369,872</b>	<b>2.95</b>	<b>3,369,872</b>
<b>Held-to-Maturity:</b>											
State and political subdivisions	55,592	2.49	207,221	2.84	138,384	3.44	164,349	3.50	565,546	3.15	575,042
Trust preferred securities	—	—	—	—	—	—	500	6.21	500	6.21	460
Total investment securities held-to-maturity	<b>55,592</b>	<b>2.49</b>	<b>207,221</b>	<b>2.84</b>	<b>138,384</b>	<b>3.44</b>	<b>164,849</b>	<b>3.51</b>	<b>566,046</b>	<b>3.15%</b>	<b>575,502</b>
Total investment securities	<b>\$ 839,653</b>	<b>2.66%</b>	<b>\$1,504,685</b>	<b>2.76%</b>	<b>\$ 948,149</b>	<b>3.17%</b>	<b>\$ 643,431</b>	<b>3.63%</b>	<b>\$3,935,918</b>	<b>2.98%</b>	<b>\$3,945,374</b>

- (1) Residential mortgage-backed securities, collateralized mortgage obligations and certain government and government-sponsored enterprise securities are based on scheduled principal maturity. All other investment securities are based on final contractual maturity.
- (2) The aggregate book value of securities issued by any single issuer, other than the U.S. government and government-sponsored enterprises, did not exceed 10% of our shareholders' equity.
- (3) Yields are weighted by amount and time to contractual maturity, are on a taxable equivalent basis using a 21% federal income tax rate and are based on carrying value. Yields disclosed are actual yields based on carrying value at June 30, 2019. Approximately 24% of investment securities at June 30, 2019 were variable-rate financial instruments.

**Maturity as of December 31, 2018<sup>(1)</sup>**

(Dollars in thousands)	Within One Year		After One but Within Five Years		After Five but Within Ten Years		After Ten Years		Total Carrying Value <sup>(2)</sup>		Total Fair Value
	Amount	Yield <sup>(3)</sup>	Amount	Yield <sup>(3)</sup>	Amount	Yield <sup>(3)</sup>	Amount	Yield <sup>(3)</sup>	Amount	Yield <sup>(3)</sup>	
<b>Carried at Fair Value:</b>											
Government and government-sponsored enterprises	\$ 35,502	3.44%	\$ 115,562	3.32%	\$ 147,939	3.37%	\$ 52,697	3.41%	\$ 351,700	3.37%	\$ 351,700
State and political subdivisions	19,539	1.98	43,746	2.34	139,586	2.54	313,415	3.17	516,286	2.88	516,286
Residential mortgage-backed securities	33,262	2.96	94,271	2.94	55,617	2.90	30,278	2.98	213,428	2.94	213,428
Collateralized mortgage obligations	256,044	2.90	758,278	2.96	387,959	3.08	199,017	3.03	1,601,298	2.99	1,601,298
Corporate bonds	37,348	2.23	37,998	3.18	217,717	3.99	—	—	293,063	3.66	293,063
Trust preferred securities	—	—	—	—	44,572	4.53	1,485	2.06	46,057	4.45	46,057
<b>Total debt securities carried at fair value</b>	<b>381,695</b>	<b>2.84</b>	<b>1,049,855</b>	<b>2.98</b>	<b>993,390</b>	<b>3.30</b>	<b>596,892</b>	<b>3.13</b>	<b>3,021,832</b>	<b>3.10</b>	<b>3,021,832</b>
<b>Held-to-Maturity:</b>											
State and political subdivisions	58,875	3.22	228,229	3.35	163,565	3.41	172,930	3.28	623,599	3.33	618,232
Trust preferred securities	—	—	—	—	—	—	500	5.75	500	5.75	440
<b>Total investment securities held-to-maturity</b>	<b>58,875</b>	<b>3.22</b>	<b>228,229</b>	<b>3.35</b>	<b>163,565</b>	<b>3.41</b>	<b>173,430</b>	<b>3.28</b>	<b>624,099</b>	<b>3.34</b>	<b>618,672</b>
<b>Total investment securities</b>	<b>\$ 440,570</b>	<b>2.89%</b>	<b>\$1,278,084</b>	<b>3.05%</b>	<b>\$1,156,955</b>	<b>3.32%</b>	<b>\$ 770,322</b>	<b>3.16%</b>	<b>\$3,645,931</b>	<b>3.14%</b>	<b>\$3,640,504</b>

- (1) Residential mortgage-backed securities, collateralized mortgage obligations and certain government and government-sponsored enterprise securities are based on scheduled principal maturity. All other investment securities are based on final contractual maturity.
- (2) The aggregate book value of securities issued by any single issuer, other than the U.S. government and government-sponsored enterprises, did not exceed 10% of our shareholders' equity.
- (3) Yields are weighted by amount and time to contractual maturity, are on a taxable equivalent basis using a 21% federal income tax rate and are based on carrying value. Yields disclosed are actual yields based on carrying value at December 31, 2018. Approximately 24% of investment securities at December 31, 2018 were variable-rate financial instruments.

We utilize third-party pricing services to obtain market value prices for our investment securities portfolio. On a quarterly basis, we validate the reasonableness of prices received from the third-party pricing services through independent price verification on a sample of investment securities in the portfolio, data integrity validation based upon comparison of current market prices to prior period market prices and analysis of overall expectations of movement in market prices based upon the changes in the related yield curves and other market factors. We annually review the pricing methodology of the third-party pricing vendors and the results of the vendors' internal control assessments to ensure the integrity of the process that the vendor uses to develop market pricing for our investment securities portfolio.

The carrying value of our investment securities totaled \$3.94 billion at June 30, 2019, an increase of \$290.0 million, or 8.0%, from investment securities of \$3.65 billion at December 31, 2018, primarily as a result of our long-term plan to increase our investment securities portfolio as a percentage of total assets.

Our investment securities portfolio as of June 30, 2019 had a weighted average life of approximately 4.2 years and an effective duration of approximately 1.7 years.

The following table summarizes the carrying value of investment securities at June 30, 2019 and December 31, 2018:

(Dollars in thousands)	June 30, 2019	December 31, 2018
<b>Carried at Fair Value:</b>		
Government and government-sponsored enterprises	\$ 295,726	\$ 351,700
State and political subdivisions	444,085	516,286
Residential mortgage-backed securities	353,622	213,428
Collateralized mortgage obligations	1,939,695	1,601,298
Corporate bonds	289,312	293,063
Trust preferred securities	47,432	46,057
Total investment securities carried at fair value	<u>3,369,872</u>	<u>3,021,832</u>
<b>Held-to-Maturity:</b>		
State and political subdivisions	565,546	623,599
Trust preferred securities	500	500
Total investment securities held-to-maturity	<u>566,046</u>	<u>624,099</u>
<b>Total investment securities</b>	<u><u>\$ 3,935,918</u></u>	<u><u>\$ 3,645,931</u></u>

At June 30, 2019, our investment securities portfolio consisted of: Government and government-sponsored enterprise (GSE) debt obligations, comprised primarily of fixed-rate instruments backed by U.S. government agencies or government-sponsored enterprises, totaling \$295.7 million; state and political subdivisions debt obligations, comprised primarily of general debt obligations, totaling \$1.01 billion; residential mortgage-backed securities (MBSs), comprised primarily of fixed-rate instruments backed by U.S. government agencies or government-sponsored enterprises, totaling \$353.6 million; collateralized mortgage obligations (CMOs), comprised of approximately 84.1% fixed-rate and 15.9% variable-rate instruments primarily backed by U.S. government agencies and government-sponsored enterprises, totaling \$1.94 billion; corporate bonds, comprised primarily of debt obligations of large U.S. global financial organizations, totaling \$289.3 million; and trust preferred securities (TRUPs), comprised of variable-rate TRUPs from both publicly-traded bank holding companies and small non-public bank holding companies, totaling \$47.9 million. Fixed-rate instruments comprised approximately 75.6% of our investment securities portfolio at June 30, 2019.

We record investment securities in accordance with ASC Topic 320, Investments-Debt Securities under which we are required to assess securities that have fair values below their amortized cost basis to determine whether the decline (impairment) is other-than-temporary. We perform a quarterly assessment to determine whether unrealized losses in our debt securities portfolio are temporary or other-than-temporary by considering all reasonably available information. We review factors such as financial statements, credit ratings, news releases and other pertinent information of the underlying issuer or company to make our determination. In assessing whether a decline is other-than-temporary, management considers, among other things, (i) the length of time and the extent to which the fair value has been less than the amortized cost, (ii) the financial condition and near-term prospects of the issuer, (iii) the potential for impairments in an entire industry or sub-sector and (iv) the potential for impairments in certain economically depressed geographical locations.

Our total investment securities portfolio had a carrying value of \$3.94 billion at June 30, 2019, with gross unrealized losses of \$14.7 million at that date. We believe that the unrealized losses on debt securities at June 30, 2019 were temporary in nature and due primarily to changes in interest rates on the investment securities and market illiquidity, and not as a result of credit-related issues. Accordingly, we believe the unrealized losses in our debt securities portfolio at June 30, 2019 were temporary in nature and, therefore, no impairment loss was recognized in our Consolidated Statements of Income for the six months ended June 30, 2019. However, other-than-temporary impairment ("OTTI") may occur in the future as a result of material declines in the fair value of investment securities resulting from market, credit, economic or other conditions. A further discussion of the assessment of potential impairment and our process that resulted in the conclusion that the impairment was temporary in nature follows.

At June 30, 2019, the gross unrealized losses in our investment securities portfolio of \$14.7 million were comprised as follows: Government and GSE securities, residential MBSs and CMOs, combined, of \$8.8 million, corporate bonds of \$3.9 million, state and political subdivisions securities of \$1.2 million and TRUPs of \$782 thousand. The amortized costs and fair values of investment securities are disclosed in Note 4 to our Consolidated Financial Statements.



Government and GSE securities, residential MBSs and CMOs, included in our carried at fair value investment securities portfolio, had a combined amortized cost of \$2.58 billion and gross unrealized losses of \$8.8 million at June 30, 2019. The vast majority of the investment securities in these categories are backed by the full faith and credit of the U.S. government or a guarantee of a U.S. government agency or government-sponsored enterprise. We determined that the unrealized losses on these investment securities were attributable to current market interest rates being higher than the yields being earned on these investment securities. The investment securities in these categories that are not backed by a government related guarantee had an amortized cost of \$607.6 million and gross unrealized gains of \$100 thousand at June 30, 2019. We determined that the unrealized losses on these investment securities were attributable to current market interest rates being higher than the yields being earned on these investment securities in addition to the securities holding credit support in the form of subordinated debt positions. We concluded that the unrealized losses in our government and GSE securities, residential MBSs and CMOs were temporary in nature at June 30, 2019.

State and political subdivisions securities, included in our carried at fair value and held-to-maturity investment securities portfolios, had an amortized cost of \$993.9 million and gross unrealized losses of \$1.2 million at June 30, 2019. Approximately 77.4% of the state and political subdivisions securities are general obligations of the issuer, meaning that repayment of these obligations is funded by general tax collections of the issuer. The gross unrealized losses were attributable to state and political subdivisions securities with an amortized cost of \$254.2 million that generally mature beyond 2019. It was our assessment that the unrealized losses on these investment securities were attributable to current market interest rates being slightly higher than the yield on these investment securities and illiquidity in the market due to the nature of a portion of these investment securities. We concluded that the unrealized losses in our state and political subdivisions securities were temporary in nature at June 30, 2019.

Corporate bonds included in our carried at fair value investment securities portfolio had an amortized cost of \$291.9 million and gross unrealized losses of \$3.9 million at June 30, 2019. The investment securities in this category are investment grade securities and none have had recent downgrades. We determined that the unrealized losses on these investment securities were attributable to current market interest rates being higher than the yields being earned on these investment securities. We concluded that the unrealized loss was temporary in nature at June 30, 2019.

Trust preferred securities included in our carried at fair value investment securities portfolio had an amortized cost of \$47.7 million and gross unrealized losses of \$742 thousand at June 30, 2019. The investment securities in this category are investment grade securities and none have had recent downgrades. The principal on these TRUPs mature in periods ranging from 2027 to 2037, with dividend payments due quarterly. All scheduled dividend payments for these TRUPs have been made on a timely basis. We concluded that the unrealized loss was temporary in nature at June 30, 2019 as the ability of each of these entities to repay remains strong.

At June 30, 2019, we held one TRUP in our held-to-maturity investment securities portfolio, with an amortized cost of \$500 thousand and gross unrealized loss of \$40 thousand. This TRUP represents a 10% interest in the TRUP of a well-capitalized non-public bank holding company in Michigan. The principal of \$500 thousand of this TRUP matures in 2033, with interest payments due quarterly. All scheduled interest payments on this TRUP have been made on a timely basis. We determined that the unrealized loss on this TRUP was attributable to a lack of liquidity for issuances of this size. We concluded that the unrealized loss on our TRUP was temporary in nature at June 30, 2019.

At June 30, 2019, we expected to fully recover the entire amortized cost basis of each investment security in an unrealized loss position in our investment securities portfolio at that date. Furthermore, at June 30, 2019, we did not have the intent to sell any of our investment securities in an unrealized loss position and believed that it was more-likely-than-not that we would not have to sell any of our investment securities before a full recovery of amortized cost. However, there can be no assurance that OTTI losses will not be recognized on any investment security in the future.

## **Loans**

Our loan portfolio is comprised of commercial, commercial real estate (which includes owner-occupied, non-owner occupied and vacant land) and real estate construction and land development loans, referred to as our commercial loan portfolio, and residential mortgage, consumer installment and home equity loans, referred to as our consumer loan portfolio. At June 30, 2019, our loan portfolio was \$15.86 billion and consisted of loans in the commercial loan portfolio totaling \$9.90 billion, or 62.4% of total loans, and loans in the consumer loan portfolio totaling \$5.97 billion, or 37.6% of total loans.

Chemical Bank is a full-service commercial bank and the acceptance and management of credit risk is an integral part of our business. We maintain loan policies and credit underwriting standards as part of the process of managing credit risk. These standards include making loans generally only within our market areas. Our lending markets generally consist of communities throughout Michigan, Ohio and Northern Indiana. Our lending philosophy is implemented through strong administrative and

reporting controls. We maintain a centralized independent loan review function that monitors the approval process and ongoing asset quality of the loan portfolio.

Total loans were \$15.86 billion at June 30, 2019, an increase of \$592.1 million, or 3.9%, from total loans of \$15.27 billion at December 31, 2018, and an increase of \$1.28 billion, or 8.8%, from total loans of \$14.58 billion at June 30, 2018. We experienced originated loan growth of \$1.03 billion during the six months ended June 30, 2019 and \$2.17 billion during the twelve months ended June 30, 2019. The increases were partially offset by run-off in the acquired loan portfolio of \$434.2 million during the six months ended June 30, 2019 and \$892.4 million during the twelve months ended June 30, 2019.

The following table includes the composition of our loan portfolio, by major loan category, as of June 30, 2019 and December 31, 2018.

<b>(Dollars in thousands)</b>	<b>June 30, 2019</b>	<b>December 31, 2018</b>
<b>Commercial loan portfolio:</b>		
Commercial	\$ 4,347,885	\$ 4,002,568
<b>Commercial real estate:</b>		
Owner-occupied	2,024,561	2,059,557
Non-owner occupied	2,772,677	2,785,020
Vacant land	49,962	67,510
<b>Total commercial real estate</b>	<b>4,847,200</b>	<b>4,912,087</b>
Real estate construction and land development	700,770	597,212
<b>Subtotal - commercial loan portfolio</b>	<b>9,895,855</b>	<b>9,511,867</b>
<b>Consumer loan portfolio:</b>		
Residential mortgage	3,666,613	3,458,666
Consumer installment	1,552,835	1,521,074
Home equity	746,600	778,172
<b>Subtotal - consumer loan portfolio</b>	<b>5,966,048</b>	<b>5,757,912</b>
<b>Total loans</b>	<b>\$ 15,861,903</b>	<b>\$ 15,269,779</b>

A discussion of our loan portfolio by category follows.

### **Commercial Loan Portfolio**

Our commercial loan portfolio is comprised of commercial loans, commercial real estate loans (which includes owner-occupied, non-owner occupied and vacant land), real estate construction loans and land development loans. Our commercial loan portfolio is well diversified across business lines and has no concentration in any one industry. The commercial loan portfolio of \$9.90 billion at June 30, 2019 included 211 loan relationships of \$10.0 million or greater. These 211 loan relationships totaled \$4.51 billion, which represented 45.6% of the commercial loan portfolio at June 30, 2019 and included 130 loan relationships that had outstanding balances of \$15.0 million or higher, totaling \$3.49 billion, or 35.3% of the commercial loan portfolio, at that date. We had 81 loan relationships that had outstanding balances of \$20.0 million or higher, totaling \$2.63 billion, or 26.6% of the commercial loan portfolio, at June 30, 2019. We had 34 loan relationships at June 30, 2019 with loan balances greater than \$10.0 million and less than \$15.0 million, totaling \$447.2 million, that had unfunded credit commitments totaling \$242.0 million that, if advanced, could result in a loan relationship of \$15.0 million or more.

The following table presents the contractual maturities of our \$9.90 billion commercial loan portfolio at June 30, 2019. Commercial loans at fixed interest rates comprised 42.8% of our total commercial loan portfolio at June 30, 2019, compared to 51.1% at December 31, 2018. The percentage of these loans maturing within one year was 29.7% at June 30, 2019, while the percentage of these loans maturing beyond five years remained low at 17.7% at June 30, 2019. At June 30, 2019, loans in the commercial loan portfolio with maturities beyond one year totaled \$6.96 billion, with 52.0% of these loans at fixed interest rates.

(Dollars in thousands)	June 30, 2019			
	Due In			
	1 Year or Less	1 to 5 Years	Over 5 Years	Total
Loan maturities:				
Commercial	\$ 1,520,162	\$ 2,350,054	\$ 477,669	\$ 4,347,885
Commercial real estate:				
Owner-occupied	334,873	1,339,579	350,109	2,024,561
Non-owner occupied	690,936	1,262,593	819,148	2,772,677
Vacant land	22,902	25,949	1,111	49,962
Total commercial real estate	1,048,711	2,628,121	1,170,368	4,847,200
Real estate construction and land development	369,311	232,032	99,427	700,770
Total	<u>\$ 2,938,184</u>	<u>\$ 5,210,207</u>	<u>\$ 1,747,464</u>	<u>\$ 9,895,855</u>
Percent of total	<u>29.7%</u>	<u>52.6%</u>	<u>17.7%</u>	<u>100.0%</u>
Interest sensitivity of above loans:				
Fixed interest rates	\$ 617,662	\$ 2,857,436	\$ 759,712	\$ 4,234,810
Variable interest rates	2,320,522	2,352,771	987,752	5,661,045
Total	<u>\$ 2,938,184</u>	<u>\$ 5,210,207</u>	<u>\$ 1,747,464</u>	<u>\$ 9,895,855</u>

The following table presents the contractual maturities of our \$9.51 billion commercial loan portfolio at December 31, 2018.

(Dollars in thousands)	December 31, 2018			
	Due In			
	1 Year or Less	1 to 5 Years	Over 5 Years	Total
Loan maturities:				
Commercial	\$ 1,180,581	\$ 2,296,822	\$ 525,165	\$ 4,002,568
Commercial real estate:				
Owner-occupied	219,398	1,231,037	609,122	2,059,557
Non-owner occupied	440,343	1,424,344	920,333	2,785,020
Vacant land	19,128	32,041	16,341	67,510
Total commercial real estate	678,869	2,687,422	1,545,796	4,912,087
Real estate construction and land development	175,076	326,131	96,005	597,212
Total	<u>\$ 2,034,526</u>	<u>\$ 5,310,375</u>	<u>\$ 2,166,966</u>	<u>\$ 9,511,867</u>
Percent of total	<u>21.4%</u>	<u>55.8%</u>	<u>22.8%</u>	<u>100.0%</u>
Interest sensitivity of above loans:				
Fixed interest rates	\$ 628,744	\$ 3,362,009	\$ 873,128	\$ 4,863,881
Variable interest rates	1,405,782	1,948,366	1,293,838	4,647,986
Total	<u>\$ 2,034,526</u>	<u>\$ 5,310,375</u>	<u>\$ 2,166,966</u>	<u>\$ 9,511,867</u>

Commercial loans consist of loans and lines of credit to varying types of businesses, including municipalities, school districts and nonprofit organizations, for the purpose of supporting working capital and operational needs and term financing of equipment. Repayment of such loans is generally provided through operating cash flows of the borrower. Commercial loans are generally secured with inventory, accounts receivable, equipment, personal guarantees of the owner or other sources of repayment, although we may also obtain real estate as collateral.

Commercial loans were \$4.35 billion at June 30, 2019, an increase of \$345.3 million, or 8.6%, from commercial loans of \$4.00 billion at December 31, 2018. Originated commercial loans grew by \$465.4 million, or 14.2%, during the six months ended June 30, 2019, partially offset by run-off in the acquired loan portfolio of \$120.1 million. Commercial loans represented 27.4% of our loan portfolio at June 30, 2019, compared to 26.2% at December 31, 2018.

Commercial real estate loans include loans that are secured by real estate occupied by the borrower for ongoing operations (owner occupied), non-owner occupied real estate leased to one or more tenants (non-owner occupied) and vacant land that has been acquired for investment or future land development (vacant land). Commercial real estate loans were \$4.85 billion at June 30, 2019, a decrease of \$64.9 million, or 1.3%, from commercial real estate loans of \$4.91 billion at December 31, 2018. Loans secured by owner occupied properties, non-owner occupied properties and vacant land comprised 41.8%, 57.2% and 1.0%, respectively, of our commercial real estate loans outstanding at June 30, 2019. Commercial real estate loans represented 30.6% of our loan portfolio at June 30, 2019, compared to 32.2% at December 31, 2018.

Commercial and commercial real estate lending are generally considered to involve a higher degree of risk than residential mortgage, consumer installment and home equity lending as they typically involve larger loan balances concentrated in a single borrower. In addition, the payment experience on loans secured by income-producing properties and vacant land loans is typically dependent on the success of the operation of the related project and is typically affected by adverse conditions in the real estate market and in the economy. We generally attempt to mitigate the risks associated with commercial and commercial real estate lending by, among other things, lending primarily in our market areas, lending across industry lines, not developing a concentration in any one line of business and using prudent loan-to-value ratios in the underwriting process. It is management's belief that our commercial and commercial real estate loan portfolios are generally well-secured.

Real estate construction loans are primarily originated for construction of commercial properties and often convert to a commercial real estate loan at the completion of the construction period. Land development loans include loans made to developers for the purpose of infrastructure improvements to vacant land to create finished marketable residential and commercial lots/land. A majority of our land development loans consist of loans to develop residential real estate. Land development loans are generally originated as interest only with the intention that the loan principal balance will be repaid through the sale of finished properties by the developers within twelve months of the completion date. Real estate construction and land development loans were \$700.8 million at June 30, 2019, an increase of \$103.6 million, or 17.3%, compared to \$597.2 million at December 31, 2018. Real estate construction and land development loans represented 4.4% of our loan portfolio at June 30, 2019, compared to 3.9% at December 31, 2018.

Real estate construction and land development lending involves a higher degree of risk than commercial real estate lending and residential mortgage lending because of the uncertainties of construction, including the possibility of costs exceeding the initial estimates, the need to obtain a tenant or purchaser of the property if it will not be owner-occupied or the need to sell developed properties. We generally attempt to mitigate the risks associated with real estate construction and land development lending by, among other things, lending primarily in our market areas, using prudent underwriting guidelines and closely monitoring the construction process. At June 30, 2019, \$3.8 million or 0.54%, of our \$700.8 million of real estate construction and land development loans were considered impaired, whereby we determined it was probable that the full amount of principal and interest would not be collected on these loans in accordance with their original contractual terms. At December 31, 2018, \$237 thousand, or 0.04%, of our \$597.2 million of real estate construction and land development loans were considered impaired.

### **Consumer Loan Portfolio**

Our consumer loan portfolio is comprised of residential mortgage loans, consumer installment loans and home equity loans and lines of credit.

Residential mortgage loans consist primarily of one- to four-family residential loans, generally with fixed interest rates of 15 years or less, with amortization periods generally from 15 to 30 years. The loan-to-value ratio at the time of origination is generally 80% or less. Loans with more than an 80% loan-to-value ratio generally require private mortgage insurance.

Residential mortgage loans were \$3.67 billion at June 30, 2019, an increase of \$207.9 million, or 6.0%, from residential mortgage loans of \$3.46 billion at December 31, 2018. Residential mortgage loans historically involve the least amount of credit risk in our loan portfolio. Residential mortgage loans also include loans to consumers for the construction of single family residences that are secured by these properties. Residential mortgage construction loans to consumers were \$252.9 million at June 30, 2019, compared to \$249.4 million at December 31, 2018. Residential mortgage loans represented 23.1% of our loan portfolio at June 30, 2019, compared to 22.7% of our loan portfolio at December 31, 2018.

Our consumer installment loans consist of relatively small loan amounts to consumers to finance personal items (primarily automobiles, recreational vehicles and marine vehicles) with the majority comprised of indirect loans generated from dealerships. Consumer installment loans were \$1.55 billion at June 30, 2019, an increase of \$31.8 million, or 2.1%, compared to \$1.52 billion at December 31, 2018. At June 30, 2019, collateral securing consumer installment loans was comprised approximately as follows: automobiles - 50.7%; recreational vehicles - 24.9%; marine vehicles - 20.4%; other collateral - 1.8%; and unsecured - 2.2%. Consumer installment loans represented 9.8% of our loan portfolio at June 30, 2019, compared to 10.0% at December 31, 2018.

Our home equity loans, including home equity lines of credit, are comprised of loans to consumers who utilize equity in their personal residence, including junior lien mortgages, as collateral to secure the loan or line of credit. Home equity loans were \$746.6 million at June 30, 2019, a decrease of \$31.6 million, or 4.1%, from home equity loans of \$778.2 million at December 31, 2018. Home equity loans represented 4.7% of our loan portfolio at June 30, 2019, compared to 5.1% at December 31, 2018. Home equity lines of credit comprised \$355.2 million, or 47.6%, of our home equity loans at June 30, 2019, compared to \$368.0 million, or 47.3%, of home equity loans at December 31, 2018. The majority of our home equity lines of credit are comprised of loans with payments of interest only and original maturities of up to ten years. These home equity lines of credit include junior lien mortgages whereby the first lien mortgage is held by a nonaffiliated financial institution.

Consumer installment and home equity loans generally have shorter terms than residential mortgage loans, but generally involve more credit risk than residential mortgage lending because of the type and nature of the collateral. We experienced net credit losses on average consumer installment and home equity loans totaling 18 basis points (annualized) during the six months ended June 30, 2019, compared to 23 basis points of average consumer installment and home equity loans in all of 2018. Consumer installment and home equity loans are spread across many individual borrowers, which minimizes the risk per loan transaction. We originate consumer installment and home equity loans utilizing a computer-based credit scoring analysis to supplement the underwriting process. Consumer installment and home equity lending collections are dependent on the borrowers' continuing financial stability and are more likely to be affected by adverse personal situations. Collateral values on properties securing consumer installment and home equity loans are negatively impacted by many factors, including the physical condition of the collateral and property values, although losses on consumer installment and home equity loans are often more significantly impacted by the unemployment rate and other economic conditions. The unemployment rates in Michigan, Ohio and Indiana were 4.2%, 4.0% and 3.5%, respectively, at June 30, 2019, compared to 4.0%, 4.6% and 3.6%, respectively, at December 31, 2018. The national average unemployment rate was 3.7% at June 30, 2019.

## **Asset Quality**

### **Summary of Impaired Assets and Past Due Loans**

A loan is impaired when, based on current information and events, it is probable that we will be unable to collect all amounts due according to the contractual terms of the loan agreement. Impaired loans included nonperforming loans and all troubled debt restructurings ("TDRs").

Nonperforming assets consist of loans for which the accrual of interest has been discontinued, other real estate owned acquired through acquisitions or mergers, other real estate owned obtained through foreclosures and other repossessed assets. We do not consider accruing TDRs to be nonperforming assets. Our level of nonaccrual loans is an important element in assessing asset quality. We transfer originated loans that are 90 days or more past due to nonaccrual status, unless we believe the loan is both well-secured and in the process of collection. For loans classified as nonaccrual, including those with modifications, we do not expect to receive all principal and interest payments, and therefore, any payments are recognized as principal reductions when received.

Acquired loans, accounted for under ASC 310-30, that are not performing in accordance with contractual terms are not reported as nonperforming because these loans are recorded in pools at their net realizable value based on the principal and interest we expect to collect on these loans.

Nonperforming assets were \$106.0 million at June 30, 2019, an increase of \$14.3 million, or 15.6%, from \$91.7 million at December 31, 2018. The increase in nonperforming assets during the six months ended June 30, 2019 was primarily attributable to increases in commercial and owner-occupied commercial real estate loans being downgraded to nonaccrual status. Nonperforming assets represented 0.47% of total assets at June 30, 2019 and 0.43% at December 31, 2018, respectively. Our nonperforming assets are not concentrated in any one industry or any one geographical area. We individually assess each impaired loan to determine if a specific reserve is needed within our allowance for loan losses beyond any charge-offs that may have already been taken.

The following table provides a summary of impaired assets:

(Dollars in thousands)	June 30, 2019	December 31, 2018
Nonaccrual loans <sup>(1)</sup> :		
Commercial loan portfolio:		
Commercial	\$ 37,762	\$ 30,139
Commercial real estate:		
Owner-occupied	20,814	16,056
Non-owner occupied	21,639	23,021
Vacant land	1,446	3,337
Total commercial real estate	43,899	42,414
Real estate construction and land development	3,501	12
Total commercial loan portfolio	85,162	72,565
Consumer loan portfolio:		
Residential mortgage	7,636	7,988
Consumer installment	1,411	1,276
Home equity	3,487	3,604
Total consumer loan portfolio	12,534	12,868
Total nonaccrual loans	97,696	85,433
Other real estate and repossessed assets	8,267	6,256
Total nonperforming assets	\$ 105,963	\$ 91,689
Accruing troubled debt restructurings		
Commercial loan portfolio	\$ 35,549	\$ 32,508
Consumer loan portfolio	12,304	13,072
Total performing troubled debt restructurings	47,853	45,580
Total impaired assets	\$ 153,816	\$ 137,269
Accruing loans contractually past due 90 days or more as to interest or principal payments, excluding loans accounted for under ASC 310-30		
Commercial loan portfolio	\$ 146	\$ 939
Consumer loan portfolio	—	488
Total accruing loans contractually past due 90 days or more as to interest or principal payments	\$ 146	\$ 1,427
Nonperforming loans as a percent of total loans	0.62%	0.56%
Nonperforming assets as a percent of total assets	0.47%	0.43%
Impaired assets as a percent of total assets	0.68%	0.64%

<sup>(1)</sup> Includes nonaccrual troubled debt restructurings.

Nonaccrual loans that meet the definition of a TDR, or nonaccrual TDRs, totaled \$29.9 million at June 30, 2019, compared to \$28.1 million at December 31, 2018. These loans have been modified by providing the borrower a financial concession that is intended to improve our probability of collection of the amounts due.

The following schedule summarizes impaired loans to commercial borrowers and the related valuation allowance at June 30, 2019 and December 31, 2018 and partial loan charge-offs (confirmed losses) taken on these impaired loans:

(Dollars in thousands)	Amount	Valuation Allowance	Confirmed Losses	Cumulative Inherent Loss Percentage
<b>June 30, 2019</b>				
Impaired loans – originated commercial loan portfolio:				
With valuation allowance and no charge-offs	\$ 61,947	\$ 8,543	\$ —	14%
With valuation allowance and charge-offs	9,313	1,220	7,070	51%
With charge-offs and no valuation allowance	7,926	—	3,089	28%
Without valuation allowance or charge-offs	41,673	—	—	—%
Total impaired loans to commercial borrowers	<u>\$ 120,859</u>	<u>\$ 9,763</u>	<u>\$ 10,159</u>	<u>15%</u>
<b>December 31, 2018</b>				
Impaired loans – originated commercial loan portfolio:				
With valuation allowance and no charge-offs	\$ 46,112	\$ 4,103	\$ —	9%
With valuation allowance and charge-offs	7,514	1,371	5,460	53%
With charge-offs and no valuation allowance	9,350	—	3,556	28%
Without valuation allowance or charge-offs	42,062	—	—	—%
Total impaired loans to commercial borrowers	<u>\$ 105,038</u>	<u>\$ 5,474</u>	<u>\$ 9,016</u>	<u>13%</u>

After analyzing the various components of the customer relationships and evaluating the underlying collateral of impaired loans, we determined that impaired loans in the commercial loan portfolio totaling \$71.3 million at June 30, 2019 required a specific allocation of the allowance for loan losses (valuation allowance) of \$9.8 million, compared to \$53.6 million of impaired loans in the commercial loan portfolio at December 31, 2018 that required a valuation allowance of \$5.5 million.

### Nonperforming Loans

The following schedule provides the composition of nonperforming loans, by major loan category, as of June 30, 2019 and December 31, 2018.

(Dollars in thousands)	June 30, 2019		December 31, 2018	
	Amount	Percent of Total	Amount	Percent of Total
Commercial loan portfolio:				
Commercial	\$ 37,762	38.7%	\$ 30,139	35.3%
Commercial real estate:				
Owner-occupied	20,814	21.3	16,056	18.8
Non-owner occupied	21,639	22.1	23,021	26.9
Vacant land	1,446	1.5	3,337	3.9
Commercial real estate	<u>43,899</u>	<u>44.9</u>	<u>42,414</u>	<u>49.6</u>
Real estate construction and land development	3,501	3.6	12	—
Subtotal — commercial loan portfolio	<u>85,162</u>	<u>87.2</u>	<u>72,565</u>	<u>84.9</u>
Consumer loan portfolio:				
Residential mortgage	7,636	7.8	7,988	9.4
Consumer installment	1,411	1.4	1,276	1.5
Home equity	3,487	3.6	3,604	4.2
Subtotal — consumer loan portfolio	<u>12,534</u>	<u>12.8</u>	<u>12,868</u>	<u>15.1</u>
Total nonperforming loans	<u>\$ 97,696</u>	<u>100.0%</u>	<u>\$ 85,433</u>	<u>100.0%</u>

Total nonperforming loans were \$97.7 million at June 30, 2019, an increase of \$12.3 million, or 14.4%, compared to \$85.4 million at December 31, 2018. Nonperforming loans in the commercial loan portfolio were \$85.2 million at June 30, 2019, an increase of \$12.6 million, or 17.4%, from \$72.6 million at December 31, 2018. Nonperforming loans in the commercial loan portfolio comprised 87.2% of total nonperforming loans at June 30, 2019, compared to 84.9% at December 31, 2018. Nonperforming loans in the consumer loan portfolio were \$12.5 million at June 30, 2019, a decrease of \$334 thousand, or 2.6%, from \$12.9 million at December 31, 2018.

The following schedule summarizes changes in nonaccrual loans (including nonaccrual TDRs) during the three and six months ended June 30, 2019 and 2018.

(Dollars in thousands)	Three Months Ended		Six Months Ended	
	June 30,		June 30,	
	2019	2018	2019	2018
Balance at beginning of period	\$ 89,324	\$ 61,832	\$ 85,433	\$ 63,095
Additions during period	21,177	22,592	43,798	36,302
Principal balances charged off	(2,968)	(5,060)	(6,044)	(9,049)
Transfers to other real estate/repossessed assets	(1,204)	(1,101)	(2,740)	(2,353)
Moved to accrual status	(1,199)	(1,894)	(4,586)	(4,437)
Payments received	(7,434)	(9,627)	(18,165)	(16,816)
Balance at end of period	\$ 97,696	\$ 66,742	\$ 97,696	\$ 66,742

#### Nonperforming Loans — Commercial Loan Portfolio

The following schedule presents information related to stratification of nonperforming loans in the commercial loan portfolio by dollar amount at June 30, 2019 and December 31, 2018.

(Dollars in thousands)	June 30, 2019		December 31, 2018	
	Number of Borrowers	Amount	Number of Borrowers	Amount
\$5,000,000 or more	1	\$ 13,559	1	\$ 14,121
\$2,500,000 – \$4,999,999	4	13,104	5	16,085
\$1,000,000 – \$2,499,999	16	23,736	4	6,059
\$500,000 – \$999,999	12	8,504	13	9,232
\$250,000 – \$499,999	26	9,142	29	10,390
Under \$250,000	240	17,117	225	16,678
Total	299	\$ 85,162	277	\$ 72,565

Nonperforming commercial loans within the commercial loan portfolio were \$37.8 million at June 30, 2019, an increase of \$7.7 million, or 25.3%, compared to \$30.1 million at December 31, 2018. Nonperforming commercial loans comprised 0.9% and 0.8% of total commercial loans at June 30, 2019 and December 31, 2018, respectively. The largest concentration of the \$37.8 million in nonperforming commercial loans was one customer relationship totaling \$4.2 million.

Nonperforming commercial real estate loans within the commercial loan portfolio were \$43.9 million at June 30, 2019, an increase of \$1.5 million, or 3.5%, compared to \$42.4 million at December 31, 2018. Nonperforming commercial real estate loans comprised 0.9% of total commercial real estate loans at both June 30, 2019 and December 31, 2018. Nonperforming commercial real estate loans secured by owner occupied real estate, non-owner occupied real estate and vacant land totaled \$20.8 million, \$21.6 million and \$1.4 million, respectively, at June 30, 2019. Nonperforming commercial real estate loans secured by owner occupied real estate, non-owner occupied real estate and vacant land totaled \$16.1 million, \$23.0 million and \$3.3 million, respectively, at December 31, 2018. At June 30, 2019, our nonperforming commercial real estate loans were comprised of a diverse mix of commercial lines of business and were also geographically disbursed throughout our market areas. The largest concentration of the \$43.9 million in nonperforming commercial real estate loans at June 30, 2019 was one customer relationship totaling \$13.6 million secured by non-owner occupied commercial real estate property that was transferred to nonaccrual status in the third quarter of 2018.



Nonperforming real estate construction and land development loans were \$3.5 million at June 30, 2019, compared to \$12 thousand at December 31, 2018. The increase in nonperforming real estate construction and land development loans was primarily due to one real estate construction loan relationship being downgraded to nonaccrual status during the first quarter of 2019. Nonperforming real estate construction and land development loans comprised 0.5% of total real estate construction and land development loans at June 30, 2019, compared to less than 0.01% at December 31, 2018.

At June 30, 2019, we had nonperforming loans in the commercial loan portfolio of \$3.2 million that were secured by real estate and were in various stages of foreclosure, compared to \$1.1 million at December 31, 2018.

### Nonperforming Loans — Consumer Loan Portfolio

Nonperforming residential mortgage loans were \$7.6 million at June 30, 2019, a decrease of \$352 thousand, or 4.4%, from \$8.0 million at December 31, 2018. Nonperforming residential mortgage loans comprised 0.2% of total residential mortgage loans at both June 30, 2019 and December 31, 2018. At June 30, 2019, a total of \$427 thousand of nonperforming residential mortgage loans were in various stages of foreclosure, compared to \$1.1 million at December 31, 2018.

Nonperforming consumer installment loans were \$1.4 million at June 30, 2019, compared to \$1.3 million at December 31, 2018. Nonperforming consumer installment loans comprised 0.1% of total consumer installment loans at both June 30, 2019 and December 31, 2018.

Nonperforming home equity loans were \$3.5 million at June 30, 2019, compared to \$3.6 million at December 31, 2018. Nonperforming home equity loans comprised 0.5% of total home equity loans at both June 30, 2019 and December 31, 2018.

### Troubled Debt Restructurings (TDRs)

We assess all loan modifications to determine whether a restructuring constitutes a TDR. A restructuring is considered a TDR when a borrower demonstrates financial difficulties and we grant a concession on their loan because we determine that it is probable that if a modification of their loan is granted, such as reducing their monthly payments, we would be able to bring their loan relationships into a performing status. We believe loan modifications will potentially result in a lower level of loan losses and loan collection costs than if we proceeded immediately through the foreclosure process with these borrowers.

Accruing TDRs continue to accrue interest at the loan's original interest rate as we expect to collect the remaining principal balance on the loan. Nonaccrual loans that meet the definition of a TDR do not accrue interest as we do not expect to collect the full amount of principal and interest owed from the borrower on these loans.

The following summarizes TDRs (both accruing and nonaccrual) at June 30, 2019 and December 31, 2018:

(Dollars in thousands)	Accruing TDRs			Nonaccrual TDRs	Total
	Current	Past due 31-89 days	Subtotal		
<b>June 30, 2019</b>					
Commercial loan portfolio	\$ 34,259	\$ 1,290	\$ 35,549	\$ 26,526	\$ 62,075
Consumer loan portfolio	11,580	724	12,304	3,397	15,701
Total TDRs	<u>\$ 45,839</u>	<u>\$ 2,014</u>	<u>\$ 47,853</u>	<u>\$ 29,923</u>	<u>\$ 77,776</u>
<b>December 31, 2018</b>					
Commercial loan portfolio	\$ 32,173	\$ 335	\$ 32,508	\$ 24,343	\$ 56,851
Consumer loan portfolio	12,532	540	13,072	3,732	16,804
Total TDRs	<u>\$ 44,705</u>	<u>\$ 875</u>	<u>\$ 45,580</u>	<u>\$ 28,075</u>	<u>\$ 73,655</u>

A summary of changes in accruing TDRs in the commercial loan portfolio for the three and six months ended June 30, 2019 and 2018 follows:

(Dollars in thousands)	Three Months Ended		Six Months Ended	
	June 30,		June 30,	
	2019	2018	2019	2018
Balance at beginning of period	\$ 37,219	\$ 35,216	\$ 32,508	\$ 34,484
Additions for modifications	3,504	1,373	8,452	4,075
Principal payments and pay-offs	(1,321)	(602)	(1,974)	(2,244)
Transfers from nonaccrual status	—	67	1,080	67
Transfers to nonaccrual status	(3,853)	(1,893)	(4,517)	(2,221)
Balance at end of period	\$ 35,549	\$ 34,161	\$ 35,549	\$ 34,161

### Other Real Estate and Repossessed Assets

Other real estate and repossessed assets are components of nonperforming assets, included in "Interest receivable and other assets" on our Consolidated Statements of Financial Position. These include other real estate ("ORE"), comprised of residential and commercial real estate and land development properties acquired through foreclosure or by acceptance of a deed in lieu of foreclosure, and repossessed assets, comprised of other personal and commercial assets. ORE totaled \$7.9 million at June 30, 2019, an increase of \$2.1 million, or 36.1%, from \$5.8 million at December 31, 2018. The increase in ORE during the six months ended June 30, 2019 was primarily attributable to one commercial property that was moved to ORE during the first quarter of 2019. Repossessed assets totaled \$330 thousand at June 30, 2019, a decrease of \$94 thousand, from \$424 thousand at December 31, 2018.

The following schedule provides the composition of ORE at June 30, 2019 and December 31, 2018:

(Dollars in thousands)	June 30, 2019	December 31, 2018
Composition of ORE:		
Vacant land	\$ 157	\$ 305
Commercial real estate properties	4,613	2,465
Residential real estate properties	3,167	3,062
Total ORE	\$ 7,937	\$ 5,832

The following schedule summarizes ORE activity during the three and six months ended June 30, 2019 and 2018:

(Dollars in thousands)	Three Months Ended		Six Months Ended	
	June 30,		June 30,	
	2019	2018	2019	2018
Balance at beginning of period	\$ 8,659	\$ 7,199	\$ 5,832	\$ 8,182
Transfers based on adoption of ASU 2014-09 <sup>(1)</sup>	—	—	—	(189)
Additions <sup>(2)</sup>	1,283	810	5,420	2,448
Write-downs	(435)	(132)	(729)	(783)
Net payments received	(50)	(36)	(214)	(139)
Dispositions	(1,520)	(2,964)	(2,372)	(4,642)
Balance at end of period	\$ 7,937	\$ 4,877	\$ 7,937	\$ 4,877

<sup>(1)</sup> In accordance with the updates to Topic 606 adopted by us effective January 1, 2018, \$1.1 million of other real estate owned sold with seller financing were reclassified on the Consolidated Statements of Financial Position to loans and the related \$0.9 million of deferred gains were recognized in income as an adjustment to opening retained earnings. Refer to Note 1, Basis of Presentation and Significant Accounting Policies, for further information.

<sup>(2)</sup> Includes loans transferred to other real estate owned.

Our ORE is carried at the lower of cost or fair value less estimated cost to sell. We had \$428 thousand in ORE at June 30, 2019 that had been held in excess of one year. There was no ORE held in excess of three years as of June 30, 2019. We had \$9.1 million of nonperforming loans that were in the process of foreclosure at June 30, 2019.

All of our ORE properties have been written down to fair value through a charge-off against the allowance for loan losses at the time the loan was transferred to ORE, through a subsequent write-down, recorded as an operating expense, to recognize a further market value decline of the property after the initial transfer date, or due to recording at fair value as a result of acquisition transactions. Accordingly, at June 30, 2019, the carrying value of ORE of \$7.9 million was reflective of \$1.2 million in charge-offs, write-downs and acquisition-related fair value adjustments.

During the six months ended June 30, 2019, we sold 93 ORE properties for net proceeds of \$3.9 million. On an average basis, the net proceeds from these sales represented 154% of the carrying value of the property at the time of sale, with the net proceeds representing 124% of the remaining contractual loan balance at the time these loans were classified as nonperforming.

### **Allowance for Loan Losses**

We maintain the allowance for loan losses (the "allowance") at a level we believe is appropriate to absorb probable, incurred losses in our portfolio given the conditions at the time. Management determines the adequacy of the allowance based on quarterly evaluations of the loan portfolio and other factors. These evaluations are inherently subjective as they require management to make material estimates, all of which may be susceptible to significant change.

The originated allowance is comprised of specific valuation allowances (assessed for originated loans that have known credit weaknesses and are considered impaired), pooled allowances, based on assigned risk ratings and historical loan loss experience for each loan type, and a qualitative allowance based on environmental factors that take into consideration risks inherent in the originated loan portfolio that differ from historical loan loss experience. Our methodology for measuring the adequacy of the originated allowance is comprised of several key elements, which include a review of the loan portfolio, both individually and by category, and consideration of changes in the mix and volume of the loan portfolio, actual delinquency and loan loss experience, review of collateral values, the size and financial condition of the borrowers, industry and geographical exposures within the portfolio, economic conditions and employment levels of our local markets and other factors affecting business sectors.

The allowance for each acquired loan portfolio was not carried over on the date of each respective acquisition. Instead, the acquired loans were recorded at their estimated fair values at each acquisition date, with the estimated fair values including a component for expected credit losses. Acquired loans are subsequently evaluated for further credit deterioration in loan pools, which consist of loans with similar credit risk characteristics. If an acquired loan pool experiences a decrease in expected cash flows, as compared to those expected at the acquisition date, an allowance is established and allocated to acquired loans. The allowance is evaluated utilizing the key assumptions and estimates, similar to the initial estimate of fair value. Management must use judgment to develop its estimates of cash flows for acquired loans, which are impacted by many factors, including changes in property values, default rates, loss severities and prepayment speeds. As a result of the significant amount of judgment involved in estimating future cash flows expected to be collected for acquired loans, the adequacy of the allowance could be significantly impacted by changes in expected cash flows resulting from changes in credit quality of acquired loans. The results of our quarterly re-estimations of cash flows on our acquired loan portfolio resulted in no allowance established for our acquired loan portfolios at June 30, 2019, compared to \$420 thousand at December 31, 2018.

We evaluate the originated and acquired allowances on a quarterly basis in an effort to ensure the level is adequate to absorb probable losses inherent in the loan portfolios. This evaluation process is inherently subjective as it requires estimates that may be susceptible to significant change and has the potential to affect net income materially. We believe that the allowances are currently maintained at an appropriate level, considering the inherent risk in the loan portfolios. Future significant adjustments to the allowances may be necessary due to changes in economic conditions, delinquencies or the level of loan losses incurred.

The following schedule summarizes information related to our allowance for loan losses:

<b>(Dollars in thousands)</b>	<b>June 30, 2019</b>	<b>December 31, 2018</b>
<b>Allowance for loan losses:</b>		
Originated loans	\$ 115,967	\$ 109,564
Acquired loans	—	420
Total	<u>\$ 115,967</u>	<u>\$ 109,984</u>
Originated loans	<u>\$ 12,871,110</u>	<u>\$ 11,844,756</u>
Acquired loans	<u>2,990,793</u>	<u>3,425,023</u>
Total loans	<u>\$ 15,861,903</u>	<u>\$ 15,269,779</u>
Nonperforming loans	<u>\$ 97,696</u>	<u>\$ 85,433</u>
<b>Allowance for originated loan losses as a percent of:</b>		
Total originated loans	<b>0.90%</b>	0.93%
Nonperforming loans	<b>118.7%</b>	128.2%
Nonperforming loans, less impaired originated loans for which the expected loss has been charged-off	<b>129%</b>	144%
Credit mark as a percent of unpaid principal balance on acquired loans	<b>1.4%</b>	1.7%

A summary of the activity in the allowance for loan losses is included in the table below.

(Dollars in thousands)	Three Months Ended			Six Months Ended	
	June 30, 2019	March 31, 2019	June 30, 2018	June 30, 2019	June 30, 2018
<b>Allowance for loan losses - originated loan portfolio</b>					
Allowance for loan losses - beginning of period	\$ 110,284	\$ 109,564	\$ 94,762	\$ 109,564	\$ 91,887
Provision for loan losses	7,502	2,479	9,572	9,981	15,828
Loan charge-offs:					
Commercial	(1,729)	(827)	(1,210)	(2,556)	(2,703)
Commercial real estate:					
Owner-occupied	(157)	(583)	(1,752)	(740)	(1,899)
Non-owner occupied	(80)	(5)	(2)	(85)	(497)
Vacant land	(47)	(19)	(926)	(66)	(1,376)
Total commercial real estate	(284)	(607)	(2,680)	(891)	(3,772)
Real estate construction and land development	—	—	—	—	(9)
Residential mortgage	(32)	(202)	(172)	(234)	(331)
Consumer installment	(1,558)	(1,537)	(1,389)	(3,095)	(2,885)
Home equity	(21)	(32)	(275)	(53)	(850)
Total loan charge-offs	(3,624)	(3,205)	(5,726)	(6,829)	(10,550)
Recoveries of loans previously charged off:					
Commercial	649	540	693	1,189	934
Commercial real estate:					
Owner-occupied	273	51	96	324	584
Non-owner occupied	91	224	94	315	133
Vacant land	42	6	5	48	7
Total commercial real estate	406	281	195	687	724
Real estate construction and land development	—	—	—	—	35
Residential mortgage	202	126	84	328	190
Consumer installment	498	404	395	902	894
Home equity	50	95	40	145	73
Total loan recoveries	1,805	1,446	1,407	3,251	2,850
Net loan charge-offs	(1,819)	(1,759)	(4,319)	(3,578)	(7,700)
Allowance for loan losses - end of period	115,967	110,284	100,015	115,967	100,015
<b>Allowance for loan losses - acquired loan portfolio</b>					
Allowance for loan losses - beginning of period	—	420	—	420	—
Provision for loan losses	—	(420)	—	(420)	—
Allowance for loan losses - end of period	—	—	—	—	—
Total allowance for loan losses	\$ 115,967	\$ 110,284	\$ 100,015	\$ 115,967	\$ 100,015
Net loan charge-offs as a percentage of average loans (annualized)	0.05%	0.05%	0.12%	0.05%	0.11%

The allocation of the allowance for loan losses in the table below is based upon ranges of estimates and is not intended to imply either limitations on the usage of the allowance or exactness of the specific amounts. The entire allowances attributable to originated and acquired loans are available to absorb future loan losses within the originated and acquired loan portfolios without regard to the categories in which the loan losses are classified. The allocation of the allowances is based upon a combination of factors, including historical loss factors, credit-risk grading, past-due experiences, and other factors, as discussed above.

(Dollars in thousands)	June 30, 2019		December 31, 2018	
	Allowance Amount	Percent of loans in each category to total loans	Allowance Amount	Percent of loans in each category to total loans
Originated loans:				
Commercial	\$ 46,086	24%	\$ 36,931	21%
Commercial real estate:				
Owner-occupied	19,355	10	19,586	10
Non-owner occupied	17,174	13	21,789	13
Vacant land	355	—	532	—
Total commercial real estate	36,884	23	41,907	23
Real estate construction and land development	4,930	4	3,921	4
Residential mortgage	16,045	17	14,815	16
Consumer Installment	8,565	9	8,542	10
Home equity	3,457	4	3,448	4
Subtotal — originated loans	115,967	81	109,564	78
Acquired loans	—	19	420	22
Total	\$ 115,967	100%	\$ 109,984	100%

## Deposits

Total deposits were \$15.88 billion at June 30, 2019, an increase of \$286.2 million, or 1.8%, from total deposits of \$15.59 billion at December 31, 2018. The increase in total deposits during the six months ended June 30, 2019 was primarily due to increases in customer deposits of \$164.1 million and in brokered deposits of \$122.1 million. Interest and noninterest-bearing demand deposits, and savings and money market accounts totaled \$11.33 billion at June 30, 2019, compared to \$11.22 billion at December 31, 2018. Time and brokered deposits were \$4.55 billion at June 30, 2019, compared to \$4.37 billion at December 31, 2018.

It is our strategy to develop customer relationships that will drive core deposit growth and stability. Our competitive position within many of our market areas has historically limited our ability to materially increase core deposits without adversely impacting the weighted average cost of the deposit portfolio. While competition for core deposits remained strong throughout our markets during the six months ended June 30, 2019, our efforts to expand deposit relationships with existing and new customers, our financial strength and a general trend in customers holding more liquid assets have resulted in continued increases in customer deposits.

At June 30, 2019, time deposits, which consist of certificates of deposit, including CDARs, IRA deposits and other brokered funds, totaled \$4.36 billion, of which \$1.87 billion have stated maturities during the remainder of 2019. We expect the majority of these maturing time deposits to be renewed by customers. The following schedule summarizes the scheduled maturities of time deposits as of June 30, 2019:

(Dollars in thousands)	Amount	Weighted Average Interest Rate
2019 maturities:		
Third quarter	\$ 1,133,150	2.0%
Fourth quarter	737,568	2.1
2019 remaining maturities	\$ 1,870,718	2.0%
2020 maturities	2,167,134	2.2
2021 maturities	190,099	1.6
2022 maturities	84,460	1.6
2023 maturities	33,619	1.6
2024 maturities and beyond	13,984	1.5
Total time deposits	<u>\$ 4,360,014</u>	<u>2.0%</u>

The below table presents the maturity distribution of time deposits of \$250,000 or more at June 30, 2019. Time deposits of \$250,000 or more totaled \$2.37 billion and represented 14.9% of total deposits at June 30, 2019.

(Dollars in thousands)	June 30, 2019	
	Amount	Percent
Maturity:		
Within 3 months	\$ 854,107	36.0%
After 3 but within 6 months	521,521	22.0
After 6 but within 12 months	816,816	34.5
After 12 months	176,847	7.5
Total	<u>\$ 2,369,291</u>	<u>100.0%</u>

### Borrowed Funds and Other Short-Term Liabilities

Borrowed funds consist of short-term and long-term borrowings. Short-term borrowings, which generally have an original term to maturity of 30 days or less, consist of short-term FHLB advances, AFX advances and federal funds purchased which are utilized by us to fund short-term liquidity needs. Other short-term liabilities consist of collateralized customer deposits.

#### *Other Short-term Liabilities*

Other short-term liabilities consist of collateralized customer deposits, which represent funds deposited by customers that are collateralized by investment securities owned by Chemical Bank, as these deposits are not covered by Federal Deposit Insurance Corporation ("FDIC") insurance. These funds have been a stable source of liquidity for Chemical Bank, much like our core deposit base, and are generally only provided to customers that have an established banking relationship with Chemical Bank. Our collateralized customer deposits do not qualify as sales for accounting purposes. Collateralized customer deposits were \$291.7 million at June 30, 2019, compared to \$382.7 million at December 31, 2018.

#### *Short-term Borrowings*

Short-term borrowings were \$2.62 billion at June 30, 2019, compared to \$2.04 billion at December 31, 2018 and were comprised of FHLB and AFX borrowings. Short-term borrowings can also include federal funds purchased. Short-term borrowings increased \$580.0 million, or 28.5%, during the six months ended June 30, 2019, primarily to fund loan growth.

FHLB advances are borrowings from the FHLB that are generally used to fund loans and are secured by both a blanket security agreement of residential mortgage first lien and other real estate loans with an aggregate book value equal to at least 140% of the advances and FHLB capital stock owned by Chemical Bank. The carrying value of loans eligible as collateral under the

blanket security agreement was \$7.70 billion at June 30, 2019. Chemical Bank is a member of the AFX, through which it may either borrow or lend funds on an overnight or short-term basis with a group of pre-approved commercial banks. The availability of funds changes daily. We rely on short-term FHLB advances, AFX borrowings and federal funds purchased to cover short-term liquidity needs.

(Dollars in thousands)	Three Months Ended		Six Months Ended	
	June 30, 2019	June 30, 2018	June 30, 2019	June 30, 2018
<b>Short-term borrowings:</b>				
<b>Short-term FHLB advances</b>				
Maximum outstanding at any month-end	\$ 2,580,000	\$ 2,425,000	\$ 2,580,000	\$ 2,425,000
Balance outstanding at end of period	\$ 2,580,000	\$ 2,075,000	\$ 2,580,000	\$ 2,075,000
Weighted average interest rate at end of period	2.44%	2.02%	2.44%	2.02%
Average balance outstanding	\$ 1,971,374	\$ 2,229,670	\$ 1,812,762	\$ 2,143,094
Weighted average interest rate	2.30%	1.83%	2.28%	1.73%
<b>Other Short-Term Borrowings</b>				
Maximum outstanding at any month-end	\$ 35,000	\$ 20,000	\$ 35,000	\$ 20,000
Balance outstanding at end of period	\$ 35,000	\$ 20,000	\$ 35,000	\$ 20,000
Weighted average interest rate at end of period	2.41%	3.73%	2.41%	3.73%
Average balance outstanding	\$ 3,571	\$ 19,985	\$ 2,209	\$ 9,975
Weighted average interest rate	2.43%	4.37%	2.44%	4.37%

### Long-term Borrowings

Long-term borrowings were \$426.1 million at both June 30, 2019 and December 31, 2018.

A summary of the composition of our long-term borrowings follows:

(Dollars in thousands)	June 30, 2019	December 31, 2018
<b>Long-term borrowings:</b>		
Long-term FHLB advances	\$ 410,073	\$ 410,102
Subordinated debt obligations	15,996	15,900
Total long-term borrowings	\$ 426,069	\$ 426,002

### Credit-Related Commitments

We have credit-related commitments that may impact liquidity. The following schedule summarizes credit-related commitments and expected expiration dates by period as of June 30, 2019. Because many of these commitments historically have expired without being drawn upon, the total amount of these commitments does not necessarily represent future liquidity requirements. Refer to Note 13 to our Consolidated Financial Statements for a further discussion of these obligations.

(Dollars in thousands)	Less than 1 year	1-3 years	3-5 years	More than 5 years	Total
<b>Unused commitments to extend credit:</b>					
Loans to commercial borrowers	\$ 1,693,851	\$ 922,726	\$ 423,398	\$ 182,826	\$ 3,222,801
Loans to consumer borrowers	110,239	120,112	173,752	196,068	600,171
Total unused commitments to extend credit	1,804,090	1,042,838	597,150	378,894	3,822,972
Undisbursed loan commitments <sup>(1)</sup>	537,586	—	—	—	537,586
Standby letters of credit	73,130	15,873	17,831	16,894	123,728
Total credit-related commitments	\$ 2,414,806	\$ 1,058,711	\$ 614,981	\$ 395,788	\$ 4,484,286

<sup>(1)</sup> Excludes \$176.2 million of residential mortgage loan originations that were expected to be sold in the secondary market.



## **Contractual Obligations**

We have various financial obligations, including contractual obligations and future minimum lease payments, which may require future cash payments. Refer to Note 11, Note 13 and Note 14 to our Consolidated Financial Statements and to our Annual Report on Form 10-K for the year ended December 31, 2018 for a further discussion of these contractual obligations.

On May 31, 2019, we entered into a new lease agreement for our new headquarters building in Detroit, Michigan. We have approximately \$231.6 million in additional lease payments for real property that have not yet commenced, which are related to this new lease agreement. The new headquarter lease has a term of 22.5 years and a rent commencement date of January 1, 2022 with renewal options.

## **Capital**

Capital supports current operations and provides the foundation for future growth and expansion. Our total shareholders' equity was \$2.95 billion at June 30, 2019, an increase of \$117.3 million, or 4.1%, from total shareholders' equity of \$2.84 billion at December 31, 2018. Our total shareholders' equity as a percentage of total assets was 13.1% at June 30, 2019, compared to 13.2% at December 31, 2018. Our tangible shareholders' equity, which is defined as total shareholders' equity less goodwill and other acquired intangible assets, totaled \$1.80 billion at June 30, 2019 and \$1.68 billion at December 31, 2018. Our tangible shareholders' equity to tangible assets ratio was 8.4% at June 30, 2019, compared to 8.3% at December 31, 2018. Tangible shareholders' equity and the tangible shareholders' equity to tangible assets ratio are non-GAAP financial measures. Please refer to the section entitled "Non-GAAP Financial Measures."

### ***Regulatory Capital***

Under the regulatory "risk-based" capital guidelines in effect for both banks and bank holding companies, minimum capital levels are based upon perceived risk in our various asset categories. These guidelines assign risk weights to on- and off-balance sheet items in arriving at total risk-weighted assets. Regulatory capital is divided by the computed total of risk-weighted assets to arrive at the risk-based capital ratios. Our risk-weighted assets for Chemical and Chemical Bank totaled \$17.02 billion and \$16.99 billion, respectively, at June 30, 2019, compared to \$16.10 billion and \$16.07 billion respectively, at December 31, 2018. The increase in risk-weighted assets during the six months ended June 30, 2019 was primarily attributable to loan growth.

In July 2013, the FRB and the FDIC approved final rules implementing the Basel Committee on Banking Supervision's (BCBS) capital guidelines for U.S. banks (commonly known as Basel III). Under Basel III, which became applicable to us and Chemical Bank on January 1, 2015, minimum capital requirements were increased for both the quantity and quality of capital held by Chemical and Chemical Bank. Basel III added a new common equity Tier 1 capital to risk-weighted assets ratio (CET1 ratio) of 4.5%, raised the minimum ratio of Tier 1 capital to risk-weighted assets from 4.0% to 6.0%, kept the total risk-based capital ratio unchanged at 8.0% and kept the minimum leverage ratio unchanged at 4.0%. In addition to meeting the minimum capital requirements, under the Basel III capital rules, Chemical and Chemical Bank must also maintain a capital conservation buffer to avoid becoming subject to restrictions on capital distributions and certain discretionary bonus payments to management. The capital conservation buffer is calculated as a ratio of CET1 capital to risk-weighted assets, and it effectively increases the required minimum risk-based capital ratios. The capital conservation buffer requirement was phased in over a multi-year period that began on January 1, 2016. The phase-in period ended on January 1, 2019, and the capital conservation buffer is now at its fully phased-in level of 2.5%. Throughout 2018, the required capital conservation buffer was 1.875%. The Tier 1 leverage ratio is not impacted by the capital conservation buffer, and a banking institution may be considered well-capitalized even if it is out of compliance with the capital conservation buffer.

Chemical and Chemical Bank both continue to maintain strong capital positions, which exceeded the minimum capital adequacy levels prescribed by the FRB at June 30, 2019, as shown in the following schedule:

	<b>June 30, 2019</b>			
	<b>Leverage Ratio</b>	<b>Risk-Based Capital Ratios</b>		
		<b>CET Tier 1</b>	<b>Tier 1</b>	<b>Total</b>
<b>Actual Capital Ratios:</b>				
Chemical Financial Corporation	<b>8.7%</b>	<b>10.7%</b>	<b>10.7%</b>	<b>11.5%</b>
Chemical Bank	<b>8.7</b>	<b>10.6</b>	<b>10.6</b>	<b>11.3</b>
Minimum required for capital adequacy purposes	<b>4.0</b>	<b>4.5</b>	<b>6.0</b>	<b>8.0</b>
Minimum required for "well-capitalized" capital adequacy purposes	<b>5.0</b>	<b>6.5</b>	<b>8.0</b>	<b>10.0</b>
Minimum required for capital adequacy purposes including capital conservation buffer	<b>4.0</b>	<b>7.0</b>	<b>8.5</b>	<b>10.5</b>

At June 30, 2019, Chemical's and Chemical Bank's regulatory capital ratios were above the well-capitalized standards and met the 2.5% capital conservation buffer. See Note 18 to our Consolidated Financial Statements for more information regarding Chemical's and Chemical Bank's regulatory capital ratios.

## Results of Operations

### Overview

Our net income was \$69.6 million, or \$0.96 per diluted share, in the second quarter of 2019, compared to net income of \$62.9 million, or \$0.87 per diluted share, in the first quarter of 2019, and net income of \$69.0 million, or \$0.96 per diluted share, in the second quarter of 2018. Net income increased \$6.7 million in the second quarter of 2019, compared to the first quarter of 2019, and increased \$606 thousand, compared to the second quarter of 2018. Net income, excluding the change in fair value in loan servicing rights and merger expenses, net of tax (collectively referred to herein as "significant items"), a non-GAAP financial measure, was \$76.3 million, or \$1.06 per diluted share, in the second quarter of 2019, compared to \$73.3 million, or \$1.02 per diluted share, in the first quarter of 2019, and \$69.0 million, or \$0.96 per diluted share, in the second quarter of 2018. The \$3.0 million increase in net income, excluding significant items, in the second quarter of 2019, compared to the first quarter of 2019, was primarily due to increases of \$4.1 million of net gain on sale of investment securities and \$2.3 million in net interest income driven by increases in average balances and yields earned on our loan portfolio, partially offset by a \$2.1 million increase in salaries, wages and employee benefits. The \$7.3 million increase in net income, excluding significant items, in the second quarter of 2019, compared to the second quarter of 2018, was primarily attributable to a \$7.6 million increase in net interest income driven by increases in average balances and yields earned on our loan portfolio and an increase in investment securities and a \$4.2 million increase in net gains on sale of investment securities, partially offset by a \$6.0 million increase in salaries, wages and employee benefits expense.

Our net income was \$132.5 million, or \$1.84 per diluted share, for the six months ended June 30, 2019, compared to net income of \$140.6 million, or \$1.95 per diluted share, for the six months ended June 30, 2018. Net income, excluding significant items, a non-GAAP financial measure, was \$149.6 million, or \$2.07 per diluted share, for the six months ended June 30, 2019, compared to \$137.6 million, or \$1.91 per diluted share, for the six months ended June 30, 2018. The \$12.0 million increase in net income, excluding significant items, in the six months ended June 30, 2019, compared to the six months ended June 30, 2018, was primarily driven by an increase in net interest income driven primarily by increases in average balances and yields earned on our loan portfolio and an increase in investment securities, partially offset by an increase in salaries, wages and employee benefits.

Return on average assets was 1.27% in the second quarter of 2019, compared to 1.17% in the first quarter of 2019 and 1.39% in the second quarter of 2018. Return on average assets in the second quarter of 2019, excluding significant items, a non-GAAP financial measure, net of tax was 1.39%, compared to 1.36% in the first quarter of 2019 and 1.39% in the second quarter of 2018. Return on average shareholders' equity was 9.5% in the second quarter of 2019, compared to 8.8% in the first quarter of 2019 and 10.2% in the second quarter of 2018. Return on average shareholders' equity in the second quarter of 2019, excluding significant items, a non-GAAP financial measure, was 10.5%, compared to 10.3% in the first quarter of 2019 and 10.2% in the second quarter of 2018. Our return on average tangible shareholders' equity, a non-GAAP financial measure, was 15.7% in the second quarter of 2019, compared to 14.8% in the first quarter of 2019 and 17.8% in the second quarter of 2018. Our return on average tangible equity in the second quarter of 2019, excluding significant items, a non-GAAP financial measure, was 17.3%, compared to 17.2% in the first quarter of 2019 and 17.8% in the second quarter of 2018.

Return on average assets was 1.22% in the six months ended June 30, 2019, compared to 1.43% in the six months ended June 30, 2018. Return on average assets in the six months ended June 30, 2019, excluding significant items, a non-GAAP financial measure, was 1.37%, compared to 1.40% in the six months ended June 30, 2018. Return on average shareholders' equity in the six months ended June 30, 2019 was 9.2%, compared to 10.5% in the six months ended June 30, 2018. Return on average shareholders' equity in the six months ended June 30, 2019, excluding significant items, a non-GAAP financial measure, was 10.4%, compared to 10.2% in the six months ended June 30, 2018. Our return on average tangible shareholders' equity was 15.3% in the six months ended June 30, 2019, compared to 18.4% in the six months ended June 30, 2018. Our return on average tangible equity in the six months ended June 30, 2018, excluding significant items, a non-GAAP financial measure, was 17.2%, compared to 18.0% in the six months ended June 30, 2018.

Please refer to the section entitled "Non-GAAP Financial Measures" included within this Management's Discussion and Analysis of Financial Condition and Results of Operations for a reconciliation to the most directly comparable GAAP financial measures.

### **Net Interest Income**

Net interest income is the difference between interest income on earning assets, such as loans, investment and non-marketable equity securities and interest-bearing deposits with the Federal Reserve Bank ("FRB") and other banks, and interest expense on liabilities, such as deposits and borrowings. Net interest income is our largest source of net revenue (net interest income plus noninterest income), representing 81.2% of net revenue for the second quarter of 2019, compared to 86.8% for the first quarter of 2019 and 80.6% for the second quarter of 2018. Net interest income represented 83.9% of net revenue during the six months ended June 30, 2019, compared to 79.7% during the six months ended June 30, 2018. Net interest income, on a fully taxable equivalent ("FTE") basis, is the difference between interest income and interest expense adjusted for the tax benefit received on tax-exempt commercial loans and investment securities. Net interest margin (FTE) is calculated by dividing net interest income (FTE) by average interest-earning assets, annualized as applicable. Net interest spread is the difference between the average yield on interest-earning assets and the average cost of interest-bearing liabilities. Because noninterest-bearing sources of funds, or free funds (principally demand deposits and shareholders' equity), also support earning assets, the net interest margin exceeds the net interest spread.

### **Average Balances, Fully Tax Equivalent ("FTE") Interest and Effective Yields and Rates**

The following table presents the average daily balances of our major categories of assets and liabilities, interest income and expense on a FTE basis, average interest rates earned and paid on the assets and liabilities, net interest income (FTE), net interest spread and net interest margin for the three months ended June 30, 2019, March 31, 2019 and June 30, 2018 and for the six months ended June 30, 2019 and June 30, 2018. The presentation of net interest income on a FTE basis is not in accordance with GAAP but is customary in the banking industry. This non-GAAP measure ensures comparability of net interest income arising from both taxable and tax-exempt loans and investment securities. Please refer to the section entitled "Non-GAAP Financial Measures."

(Dollars in thousands)	Three Months Ended								
	June 30, 2019			March 31, 2019			June 30, 2018		
	Average Balance	Interest (FTE)	Effective Yield/Rate <sup>(1)</sup>	Average Balance	Interest (FTE)	Effective Yield/Rate <sup>(1)</sup>	Average Balance	Interest (FTE)	Effective Yield/Rate <sup>(1)</sup>
<b>Assets</b>									
Interest-earning assets:									
Loans <sup>(1)(2)</sup>	\$15,514,181	\$189,612	4.90%	\$15,323,704	\$184,058	4.86%	\$14,389,574	\$166,125	4.63%
Taxable investment securities	2,889,273	21,214	2.94	2,631,161	20,501	3.12	2,019,003	14,706	2.91
Tax-exempt investment securities <sup>(1)</sup>	1,137,426	9,231	3.25	1,154,348	9,066	3.14	1,020,567	7,592	2.98
Other interest-earning assets	194,798	2,401	4.94	193,326	1,738	3.65	189,654	2,189	4.63
Interest-bearing deposits with FRB and other banks and federal funds sold	280,507	1,641	2.35	221,116	1,280	2.35	228,464	1,301	2.28
Total interest-earning assets	20,016,185	224,099	4.49	19,523,655	216,643	4.48	17,847,262	191,913	4.31
Less: Allowance for loan losses	(111,759)			(110,852)			(96,332)		
Other assets:									
Cash and cash due from banks	165,880			186,849			219,751		
Premises and equipment	122,969			123,470			126,570		
Interest receivable and other assets	1,812,220			1,791,876			1,753,742		
Total assets	\$22,005,495			\$21,514,998			\$19,850,993		
<b>Liabilities and shareholders' equity</b>									
Interest-bearing liabilities:									
Interest-bearing demand deposits	\$ 3,258,584	\$ 6,802	0.84%	\$ 3,375,841	\$ 6,721	0.81%	\$ 2,597,610	\$ 1,393	0.22%
Savings deposits	4,548,195	11,945	1.05	4,532,107	11,257	1.01	4,116,683	6,074	0.59
Time deposits	4,430,521	23,264	2.11	4,287,346	21,020	1.99	3,468,395	12,240	1.42
Collateralized customer deposits	305,019	537	0.71	359,230	627	0.71	399,911	641	0.64
Short-term borrowings	1,974,945	11,345	2.30	1,653,222	9,178	2.25	2,249,655	10,408	1.86
Long-term borrowings	426,046	2,374	2.23	426,011	2,354	2.24	336,985	1,289	1.53
Total interest-bearing liabilities	14,943,310	56,267	1.51	14,633,757	51,157	1.42	13,169,239	32,045	0.98
Noninterest-bearing deposits	3,840,835	—	—	3,753,929	—	—	3,792,803	—	—
Total deposits and borrowed funds	18,784,145	56,267	1.20	18,387,686	51,157	1.13	16,962,042	32,045	0.76
Interest payable and other liabilities	301,139			271,597			181,605		
Shareholders' equity	2,920,211			2,855,715			2,707,346		
Total liabilities and shareholders' equity	\$22,005,495			\$21,514,998			\$19,850,993		
Net Interest Spread (Average yield earned minus average rate paid)			2.98%			3.06%			3.33%
Net Interest Income (FTE)		\$167,832			\$165,486			\$159,868	
Net Interest Margin (Net interest income (FTE) divided by total average interest-earning assets)			3.36%			3.42%			3.59%
<b>Reconciliation to Reported Net Interest Income</b>									
Net interest income, fully taxable equivalent (non-GAAP)		\$167,832			\$165,486			\$159,868	
Adjustments for taxable equivalent interest <sup>(1)</sup> :									
Loans		(737)			(766)			(737)	
Tax-exempt investment securities		(1,934)			(1,896)			(1,594)	
Total taxable equivalent interest adjustments		(2,671)			(2,662)			(2,331)	
Net interest income (GAAP)		\$165,161			\$162,824			\$157,537	
Net interest margin (GAAP)			3.31%			3.38%			3.54%

(1) Fully taxable equivalent (FTE) basis using a federal income tax rate of 21%. The presentation of net interest income on a FTE basis is not in accordance with GAAP, but is customary in the banking industry. Please refer to the section entitled "Non-GAAP Financial Measures."

(2) Nonaccrual loans and loans held-for-sale are included in average balances reported and are included in the calculation of yields. Tax equivalent interest also includes net loan fees.

(Dollars in thousands)	Six Months Ended					
	June 30, 2019			June 30, 2018		
	Average Balance	Interest (FTE)	Effective Yield/Rate <sup>(1)</sup>	Average Balance	Interest (FTE)	Effective Yield/Rate <sup>(1)</sup>
<b>Assets</b>						
Interest-earning assets:						
Loans <sup>(1)(2)</sup>	\$ 15,419,468	\$ 373,670	4.88%	\$ 14,307,705	\$ 323,693	4.55%
Taxable investment securities	2,760,930	41,715	3.02	1,901,154	27,125	2.85
Tax-exempt investment securities <sup>(1)</sup>	1,145,841	18,296	3.19	1,015,358	14,625	2.88
Other interest-earning assets	194,066	4,139	4.30	184,895	4,090	4.46
Interest-bearing deposits with the FRB and other banks and federal funds sold	250,976	2,921	2.35	245,592	2,541	2.09
Total interest-earning assets	19,771,281	440,741	4.48	17,654,704	372,074	4.24
Less: Allowance for loan losses	(111,308)			(94,500)		
Other assets:						
Cash and cash due from banks	176,307			223,186		
Premises and equipment	123,218			126,656		
Interest receivable and other assets	1,802,104			1,745,475		
Total assets	\$ 21,761,602			\$ 19,655,521		
<b>Liabilities and shareholders' equity</b>						
Interest-bearing Liabilities:						
Interest-bearing demand deposits	\$ 3,316,889	\$ 13,523	0.82%	\$ 2,681,970	\$ 2,618	0.20%
Savings deposits	4,540,195	23,202	1.03	4,082,036	11,011	0.54
Time deposits	4,359,329	44,284	2.05	3,366,051	21,995	1.32
Collateralized customer deposits	331,975	1,164	0.71	404,468	1,165	0.58
Short-term borrowings	1,814,972	20,523	2.28	2,153,069	18,574	1.74
Long-term borrowings	426,029	4,728	2.24	354,909	2,753	1.56
Total interest-bearing liabilities	14,789,389	107,424	1.46	13,042,503	58,116	0.90
Noninterest-bearing deposits	3,797,622	—	—	3,740,979	—	—
Total deposits and borrowed funds	18,587,011	107,424	1.17	16,783,482	58,116	0.70
Interest payable and other liabilities	286,449			184,096		
Shareholders' equity	2,888,142			2,687,943		
Total liabilities and shareholders' equity	\$ 21,761,602			\$ 19,655,521		
Net Interest Spread (Average yield earned minus average rate paid)			3.02%			3.34%
Net Interest Income (FTE)		\$ 333,317			\$ 313,958	
Net Interest Margin (Net Interest Income (FTE) divided by total average interest-earning assets)			3.39%			3.58%
<b>Reconciliation to Reported Net Interest Income</b>						
Net interest income, fully taxable equivalent (non-GAAP)		\$ 333,317			\$ 313,958	
Adjustments for taxable equivalent interest <sup>(1)</sup> :						
Loans		(1,503)			(1,487)	
Tax-exempt investment securities		(3,829)			(3,071)	
Total taxable equivalent interest adjustments		(5,332)			(4,558)	
Net interest income (GAAP)		\$ 327,985			\$ 309,400	
Net interest margin (GAAP)			3.35%			3.53%

(1) Fully taxable equivalent (FTE) basis using a federal income tax rate of 21%. The presentation of net interest income on a FTE basis is not in accordance with GAAP, but is customary in the banking industry.

(2) Nonaccrual loans and loans held-for-sale are included in average balances reported and are included in the calculation of yields. Tax equivalent interest also includes net loan fees.

Net interest income (FTE) of \$167.8 million in the second quarter of 2019 was \$2.3 million, or 1.4%, higher than net interest income (FTE) of \$165.5 million in the first quarter of 2019, and \$7.9 million, or 5.0%, higher than net interest income (FTE) of \$159.9 million in the second quarter of 2018. The increase in net interest income (FTE) in the second quarter of 2019, compared to the first quarter of 2019, was primarily attributable to the benefit from an increase in average balances and yields earned on loans, partially offset by an increase in average short-term borrowings and cost of funds. The increase in net interest income (FTE) in the second quarter of 2019, compared to the second quarter of 2018, was primarily attributable to increases in average balances and yields earned on loans and investment securities, partially offset by an increase in our average interest-bearing deposits and cost of funds. The net interest margin (FTE) was 3.36% in the second quarter of 2019, compared to 3.42% in the first quarter of 2019 and 3.59% in the second quarter of 2018. The decrease in the net interest margin (FTE), in the second quarter of 2019, compared to the first quarter of 2019, was primarily due to an increase in average interest-bearing liabilities and cost of funds, partially offset by increases in average balance and yield earned on loans. The decrease in the net interest margin (FTE), in the second quarter of 2019, compared to the second quarter of 2018, was primarily due to an increase in average interest-bearing deposits and cost of funds, partially offset by increases in average balances and yields earned on loans and investment securities. The average yield on interest-earning assets increased one basis point to 4.49% in the second quarter of 2019, from 4.48% in the first quarter of 2019, and increased 18 basis points compared to 4.31% in the second quarter of 2018. Interest accretion from purchase accounting discounts on acquired loans contributed 22 basis points to our net interest margin (FTE) in both the second quarter of 2019 and in the first quarter of 2019, compared to 26 basis points in the second quarter of 2018. The yield on total loans in the second quarter of 2019 of 4.90%, increased four basis points, compared to 4.86% in the first quarter of 2019, and increased 27 basis points compared to 4.63% in the second quarter of 2018, primarily due to higher yields on new loan funding and the benefit from interest rate adjustments on variable rate loans. The average cost of interest-bearing liabilities increased nine basis points to 1.51% in the second quarter of 2019, compared to 1.42% in the first quarter of 2019, and increased 53 basis points, compared to 0.98% in the second quarter of 2018, primarily due to an increase in funding costs resulting from a rising interest rate environment combined with an increase in average balances of deposits.

Net interest income (FTE) of \$333.3 million for the six months ended June 30, 2019 was \$19.3 million, or 6.2%, higher than net interest income (FTE) of \$314.0 million for the six months ended June 30, 2018, primarily attributable to increases in average balances and yields earned on loans and investment securities, partially offset by an increase in our average balances of deposits and long-term borrowings and an increase in cost of funds. The net interest margin (FTE) decreased to 3.39% for the six months ended June 30, 2019, compared to 3.58% for the six months ended June 30, 2018, primarily due to an increase in average interest-bearing deposit balances and costs of funds, partially offset by the benefit provided by increases in average balances and yields earned on loans and investment securities. The average yield on interest-earning assets increased 24 basis points to 4.48% in the six months ended June 30, 2019 from 4.24% in the six months ended June 30, 2018. Interest accretion from purchase accounting discounts on acquired loans contributed 22 basis points to our net interest margin (FTE) in the six months ended June 30, 2019, compared to 27 basis points in the six months ended June 30, 2018. The average cost of interest-bearing liabilities increased 56 basis points to 1.46% in the six months ended June 30, 2019, from 0.90% in the six months ended June 30, 2018, primarily due to an increase in funding costs resulting from a rising interest rate environment combined with an increase in average balances of deposits.

Changes in our net interest income are influenced by a variety of factors, including changes in the level and mix of interest-earning assets and interest-bearing liabilities, current and prior years' interest rate changes, the level and direction of interest rates, the difference between short-term and long-term interest rates (the steepness of the yield curve) and the general strength of the economies in our markets. Risk management plays an important role in our level of net interest income. The ineffective management of credit risk, and more significantly interest rate risk, can adversely impact our net interest income. Management monitors our Consolidated Statements of Financial Position to seek to reduce the potential adverse impact on net interest income caused by significant changes in interest rates. Our policies in this regard are further discussed under the subheading "Market Risk."

The Federal Reserve influences the general market rates of interest, including the deposit and loan rates offered by many financial institutions. The prime interest rate, which is the rate offered on loans to borrowers with strong credit, increased to 5.50% in December 2018, from the previous rates of 5.25% in September 2018, 5.00% in June 2018, 4.75% in January 2018 and from 4.50% in December 2017. The prime interest rate has historically been 300 basis points higher than the federal funds rate. The majority of our variable interest rate loans in our commercial loan portfolio are tied to the prime rate.

We are primarily funded by core deposits, which are a lower-cost funding base than wholesale funding and historically has had a positive impact on our net interest income and net interest margin.

## Volume and Rate Variance Analysis

The below table presents the effect of volume and rate changes on interest income and expense. Changes in volume are changes in the average balance multiplied by the previous year's average rate. Changes in rate are changes in the average rate multiplied by the average balance from the previous year. The net changes attributable to the combined impact of both rate and volume have been allocated proportionately to the changes due to volume and the changes due to rate.

(Dollars in thousands)	Three Months Ended June 30, 2019					
	Compared to Three Months Ended March 31, 2019			Compared to Three Months Ended June 30, 2018		
	Increase (Decrease) Due to Changes in			Increase (Decrease) Due to Changes in		
	Average Volume <sup>(1)</sup>	Average Yield/ Rate <sup>(1)</sup>	Combined Increase/ (Decrease)	Average Volume <sup>(1)</sup>	Average Yield/ Rate <sup>(1)</sup>	Combined Increase/ (Decrease)
<b>Changes in Interest Income on Interest-Earning Assets:</b>						
Loans	\$ 3,441	\$ 2,113	\$ 5,554	\$ 14,619	\$ 8,868	\$ 23,487
Taxable investment securities/other assets	1,971	(595)	1,376	6,417	303	6,720
Tax-exempt investment securities	(140)	305	165	915	724	1,639
Interest-bearing deposits with the FRB and other banks	315	46	361	242	98	340
Total change in interest income on interest-earning assets	5,587	1,869	7,456	22,193	9,993	32,186
<b>Changes in Interest Expense on Interest-Bearing Liabilities:</b>						
Interest-bearing demand deposits	(208)	289	81	404	5,005	5,409
Savings deposits	138	550	688	2,300	3,571	5,871
Time deposits	1,135	1,109	2,244	3,440	7,584	11,024
Collateralized customer deposits	(99)	9	(90)	(173)	69	(104)
Short-term borrowings	1,945	222	2,167	(1,359)	2,296	937
Long-term borrowings	23	(3)	20	332	753	1,085
Total change in interest expense on interest-bearing liabilities	2,934	2,176	5,110	4,944	19,278	24,222
<b>Total Change in Net Interest Income (FTE)<sup>(2)</sup></b>	<b>\$ 2,653</b>	<b>\$ (307)</b>	<b>\$ 2,346</b>	<b>\$ 17,249</b>	<b>\$ (9,285)</b>	<b>\$ 7,964</b>

(1) The change in interest income and interest expense due to both volume and rate has been allocated to the volume and rate changes in proportion to the relationship of the absolute dollar amounts of the change in each.

(2) Fully taxable equivalent basis using a federal income tax rate of 21%. The presentation of net interest income on a FTE basis is not in accordance with GAAP, but is customary in the banking industry.

(Dollars in thousands)	Six Months Ended June 30, 2019 Compared to Six Months Ended June 30, 2018		
	Increase (Decrease) Due to Changes in		Combined Increase/ (Decrease)
	Average Volume <sup>(1)</sup>	Average Yield/Rate <sup>(1)</sup>	
Changes in Interest Income on Interest-Earning Assets:			
Loans	\$ 28,729	\$ 21,248	\$ 49,977
Taxable investment securities/other assets	13,089	1,550	14,639
Tax-exempt investment securities	1,997	1,674	3,671
Interest-bearing deposits with the FRB and other banks	13	367	380
Total change in interest income on interest-earning assets	<u>43,828</u>	<u>24,839</u>	<u>68,667</u>
Changes in Interest Expense on Interest-Bearing Liabilities:			
Interest-bearing demand deposits	755	10,150	10,905
Savings deposits	4,535	7,656	12,191
Time deposits	6,787	15,502	22,289
Collateralized customer deposits	(233)	232	(1)
Short-term borrowings	(3,219)	5,168	1,949
Long-term borrowings	622	1,353	1,975
Total change in interest expense on interest-bearing liabilities	<u>9,247</u>	<u>40,061</u>	<u>49,308</u>
Total Change in Net Interest Income (FTE) <sup>(2)</sup>	<u>\$ 34,581</u>	<u>\$ (15,222)</u>	<u>\$ 19,359</u>

(1) The change in interest income and interest expense due to both volume and rate has been allocated to the volume and rate changes in proportion to the relationship of the absolute dollar amounts of the change in each.

(2) Fully taxable equivalent (FTE) basis using a federal income tax rate of 21% for the six months ended June 30, 2019 and June 30, 2018. The presentation of net interest income on a FTE basis is not in accordance with GAAP, but is customary in the banking industry.

## Provision for Loan Losses

The provision for loan losses ("provision") is an increase to the allowance, as determined by management, to provide for probable losses inherent in the originated loan portfolio and for impairment in pools of acquired loans that result from us experiencing a decrease, if any, in expected cash flows on acquired loans during each reporting period.

The provision was \$7.5 million in the second quarter of 2019, compared to \$2.1 million in the first quarter of 2019 and \$9.6 million in the second quarter of 2018. The increase in the provision in the second quarter of 2019, compared to the first quarter of 2019, was primarily the result of an increase in originated loan growth. The decrease in the provision in the second quarter of 2019, compared to the second quarter of 2018, was primarily the result of lower charge-offs. Net originated loan growth was \$728.8 million in the second quarter of 2019, which was partially offset by \$190.9 million of run-off in the acquired loan portfolio during the same period, compared to net originated loan growth of \$297.5 million in the first quarter of 2019, partially offset by run-off of \$243.2 million in the acquired loan portfolio during the same period, and net originated loan growth of \$684.0 million in the second quarter of 2018, partially offset by run-off of \$323.1 million in the acquired loan portfolio during the same period. The total provision was \$9.6 million in the six months ended June 30, 2019, compared to \$15.8 million in the six months ended June 30, 2018. The \$6.2 million decrease was primarily due to lower charge-offs and other indicators of overall improvement in credit quality.

We experienced net loan charge-offs of \$1.8 million, or 0.05% of average loans, in both the second and first quarters of 2019, compared to \$4.3 million, or 0.12% of average loans in the second quarter of 2018. Net loan charge-offs in the commercial loan portfolios totaled \$1.0 million in the second quarter of 2019, compared to \$613 thousand in the first quarter of 2019 and \$3.0 million in the second quarter of 2018. Net loan charge-offs in the consumer loan portfolios totaled \$861 thousand in the second quarter of 2019, compared to \$1.1 million in the first quarter of 2019 and \$1.3 million in the second quarter of 2018. Net loan charge-offs were \$3.6 million, or 0.05% of average loans, in the six months ended June 30, 2019, compared to \$7.7 million, or 0.11% of average loans in the six months ended June 30, 2018. Net loan charge-offs in the commercial loan portfolios totaled \$1.6 million in the six months ended June 30, 2019, compared to \$4.8 million in the six months ended June 30, 2018. Net loan charge-offs in the consumer loan portfolios totaled \$2.0 million in the six months ended June 30, 2019, compared to \$2.9 million in the six months ended June 30, 2018.



## Noninterest Income

The following table presents the major components of noninterest income:

(Dollars in thousands)	Three Months Ended			Six Months Ended	
	June 30, 2019	March 31, 2019	June 30, 2018	June 30, 2019	June 30, 2018
<b>Noninterest income</b>					
Service charges and fees on deposit accounts	\$ 8,247	\$ 7,967	\$ 9,690	\$ 16,214	\$ 19,124
Wealth management revenue	6,966	5,872	7,188	12,838	13,499
Other fees for customer services <sup>(1)</sup>	1,338	1,372	1,050	2,710	2,214
Electronic banking fees <sup>(1)</sup>	4,417	3,452	3,749	7,869	7,368
Net gain on sale of loans and other mortgage banking revenue <sup>(2)</sup>	9,989	8,540	8,874	18,529	17,657
Change in fair value in loan servicing rights <sup>(2)</sup>	(5,457)	(7,646)	(30)	(13,103)	3,722
Net gain on sale of investment securities	4,160	87	3	4,247	3
Bank-owned life insurance <sup>(3)</sup>	2,195	1,709	1,669	3,904	2,560
Other <sup>(3)</sup>	6,309	3,504	5,825	9,813	12,425
<b>Total noninterest income</b>	<b>\$ 38,164</b>	<b>\$ 24,857</b>	<b>\$ 38,018</b>	<b>\$ 63,021</b>	<b>\$ 78,572</b>
Noninterest income as a percentage of:					
Net revenue (net interest income plus noninterest income)	18.8%	13.2%	19.4%	16.1%	20.3%
Average total assets (annualized)	0.7%	0.5%	0.8%	0.6%	0.8%

<sup>(1)</sup> Included within the line item "Other charges and fees for customer services" in the Consolidated Statements of Income.

<sup>(2)</sup> Included within the line item "Net gain on sale of loans and other mortgage banking revenue" in our Consolidated Statements of Income.

<sup>(3)</sup> Included within the line item "Other" noninterest income in the Consolidated Statements of Income.

Noninterest income was \$38.2 million in the second quarter of 2019, compared to \$24.9 million in the first quarter of 2019 and \$38.0 million in the second quarter of 2018. Noninterest income in the second quarter of 2019 increased \$13.3 million, or 53.5%, compared to the first quarter of 2019, primarily due to increases in gain on sale of investment securities of \$4.1 million, net gain on sale of loans and other mortgage banking revenue of \$3.6 million (which includes the impact of the change in fair value in loan servicing rights) and swap fee income of \$2.1 million, included within other noninterest income. Noninterest income in the second quarter of 2019 increased compared to the second quarter of 2018, primarily due to the benefit from sales of investment securities, partially offset by a decrease in net gain on sale of loans and other mortgage banking revenue.

Noninterest income decreased \$15.6 million to \$63.0 million in the six months ended June 30, 2019, compared to \$78.6 million in the six months ended June 30, 2018, primarily due to decreases in net gain on sales of loans and other mortgage banking income of \$16.0 million (which includes the impact of the change in fair value in loan servicing rights) and service charges and fees on deposit accounts of \$2.9 million, partially offset by an increase in net gain on sale of investment securities of \$4.2 million. The net gain on sale of investment securities in the second quarter of 2019 were a result of the sale of \$133.8 million of securities to reposition the portfolio as we plan for our future following the pending merger of equals with TCF.

Service charges and fees on deposit accounts, which include overdraft/non-sufficient funds fees, checking account fees and other deposit account charges, were \$8.2 million in the second quarter of 2019, \$8.0 million in the first quarter of 2019 and \$9.7 million in the second quarter of 2018. Service charges and fees on deposit accounts increased \$280 thousand, or 3.5%, in the second quarter of 2019, compared to the first quarter of 2019, and decreased \$1.5 million, or 14.9%, from the second quarter of 2018, primarily due to a shift in overdraft fees. Service charges and fees on deposit accounts decreased to \$16.2 million in the six months ended June 30, 2019, compared to \$19.1 million in the six months ended June 30, 2018, primarily due to a decrease in overdraft fees. Overdraft/non-sufficient funds fees included in service charges and fees on deposit accounts were \$4.6 million in the second quarter of 2019, compared to \$4.4 million in the first quarter of 2019 and \$6.1 million in the second quarter of 2018, and \$9.0 million in the six months ended June 30, 2019, compared to \$12.0 million in the six months ended June 30, 2018.

Wealth management revenue is comprised of investment fees that are generally based on the market value of assets within a trust account, custodial account fees and fees from the sale of investment products. Volatility in the equity and bond markets impacts the market value of trust assets and our related investment fees. Wealth management revenue increased \$1.1 million, or 18.6%, to \$7.0 million in the second quarter of 2019, compared to \$5.9 million in the first quarter of 2019 and decreased \$222 thousand, or 3.1%, from \$7.2 million in the second quarter of 2018. The increase in the second quarter of 2019, compared to the first quarter of 2019, was primarily due to an increase in average trust assets under administration. Wealth management revenue was \$12.8 million in the six months ended June 30, 2019, a decrease of \$661 thousand, or 4.9%, compared to \$13.5 million in the six months ended June 30, 2018.

At June 30, 2019, the estimated fair value of trust assets under administration was \$5.09 billion (comprised of discretionary assets of \$2.63 billion and nondiscretionary assets of \$2.46 billion), and was \$4.60 billion at December 31, 2018 (comprised of discretionary assets of \$2.42 billion and nondiscretionary assets of \$2.19 billion). Wealth management revenue also includes fees from the sale of investment products offered through the Chemical Financial Advisors program. Fees from this program totaled \$1.1 million in the second quarter of 2019, compared to \$1.0 million in the first quarter of 2019 and \$1.5 million in the second quarter of 2018. Fees from this program totaled \$2.6 million in the six months ended June 30, 2019, compared to \$2.9 million in the six months ended June 30, 2018.

Electronic banking fees, which represent income earned from ATM transactions, debit card activity and internet banking fees were \$4.4 million in the second quarter of 2019, compared to \$3.5 million in the first quarter of 2019 and \$3.7 million in the second quarter of 2018. Electronic banking fees were \$7.9 million in the six months ended June 30, 2019, compared to \$7.4 million in the six months ended June 30, 2018.

Net gain on sale of loans and other mortgage banking revenue ("MBR") includes revenue from originating, selling and servicing residential mortgage loans for the secondary market, other loan sales and the change in fair value in loan servicing rights. MBR was \$4.5 million in the second quarter of 2019, compared to \$894 thousand in the first quarter of 2019 and \$8.8 million in the second quarter of 2018. MBR increased \$3.6 million, compared to the first quarter of 2019, and decreased \$4.3 million, compared to the second quarter of 2018. The increase in MBR in the second quarter of 2019, compared to the first quarter of 2019, was primarily due to the change in the impact to earnings from the change in fair value in loan servicing rights and an increase in gain on sales of loans as origination volume increased. The decrease in MBR in the second quarter of 2019, compared to the second quarter of 2018, was primarily due to the change in the impact to earnings from the change in fair value in loan servicing rights, partially offset by an increase in gain on sales of loans. The change in fair value in loan servicing rights resulted in a detriment of \$5.5 million in the second quarter of 2019, compared to a detriment of \$7.6 million in the first quarter of 2019 and a detriment of \$30 thousand in the second quarter of 2018. MBR was \$5.4 million in the six months ended June 30, 2019, a decrease of \$16.0 million, compared to \$21.4 million in the six months ended June 30, 2018, primarily due to the change in the impact to earnings from the change in fair value in loan servicing rights, partially offset by an increase in net gain on sale of loans. At June 30, 2019, we were servicing \$6.73 billion of residential mortgage loans that were originated in our market areas and subsequently sold in the secondary market, compared to \$6.83 billion at December 31, 2018 and \$6.95 billion at June 30, 2018.

We sell residential mortgage loans in the secondary market on both a servicing retained and servicing released basis. Our sales transactions require us to enter into residential mortgage loan sale agreements with buyers in the normal course of business. The agreements contain provisions that include various representations and warranties regarding the origination, characteristics and underwriting of the mortgage loans. The recourse of the buyer may result in either indemnification of the loss incurred by the buyer or a requirement for us to repurchase a loan that the buyer believes does not comply with the representations included in the loan sale agreement. Repurchase demands and loss indemnifications received by us are reviewed by a senior officer on a loan-by-loan basis to validate the claim made by the buyer. We maintain a reserve for probable losses expected to be incurred from loans previously sold in the secondary market. This contingent liability is based on trends in repurchase and indemnification requests, actual loss experience, information requests, known and inherent risks in the sale of loans in the secondary market and current economic conditions. We record losses resulting from the repurchase of loans previously sold in the secondary market, as well as adjustments to estimates of future probable losses, as part of our MBR in the period incurred. Our reserve for probable losses was \$3.2 million at June 30, 2019, compared to \$4.1 million at December 31, 2018 and \$4.9 million at June 30, 2018.

All other categories of noninterest income, including other fees for customer services, gain on sale of investment securities, bank-owned life insurance and other noninterest income totaled \$14.0 million in the second quarter of 2019, compared to \$6.7 million in the first quarter of 2019 and \$8.5 million in the second quarter of 2018. The increase in all other categories of noninterest income in the second quarter of 2019, compared the first quarter of 2019 and the second quarter of 2018, was primarily related to the gain on sales of investment securities and interest rate swap fee income (which is included within other noninterest income). All other categories of noninterest income totaled \$20.6 million in the six months ended June 30, 2019, compared to \$17.2 million in the six months ended June 30, 2018, which increased primarily due to an increase in net gains on sales of investment securities.

## Operating Expenses

The following table presents the major categories of operating expenses:

(Dollars in thousands)	Three Months Ended			Six Months Ended	
	June 30, 2019	March 31, 2019	June 30, 2018	June 30, 2019	June 30, 2018
<b>Operating expense</b>					
Salaries and wages <sup>(1)</sup>	\$ 53,157	\$ 50,131	\$ 47,810	\$ 103,288	\$ 93,454
Employee benefits <sup>(1)</sup>	8,972	9,886	8,338	18,858	18,251
Occupancy	7,786	8,277	7,679	16,063	15,690
Equipment and software	7,076	6,979	8,276	14,055	15,935
Outside processing and service fees	12,206	11,726	10,673	23,932	21,029
FDIC insurance premiums <sup>(2)</sup>	3,100	3,323	4,473	6,423	10,102
Professional fees <sup>(2)</sup>	3,684	2,743	3,004	6,427	5,462
Intangible asset amortization <sup>(2)</sup>	1,360	1,361	1,425	2,721	2,864
Advertising and marketing <sup>(2)</sup>	1,937	1,758	2,933	3,695	4,308
Postage and express mail <sup>(2)</sup>	1,280	1,212	1,043	2,492	2,231
Training, travel and other employee expenses <sup>(2)</sup>	1,745	1,564	1,497	3,309	2,714
Telephone <sup>(2)</sup>	712	918	864	1,630	1,712
Supplies <sup>(2)</sup>	435	591	379	1,026	958
Donations <sup>(2)</sup>	364	211	777	575	1,063
Credit-related expenses <sup>(2)</sup>	744	660	1,467	1,404	2,773
Merger expenses <sup>(3)</sup>	3,042	5,424	—	8,466	—
Impairment of federal historic income tax credits <sup>(2)(3)</sup>	271	—	1,716	271	3,350
Other <sup>(2)</sup>	3,132	2,251	2,207	5,383	4,275
Total operating expenses	\$ 111,003	\$ 109,015	\$ 104,561	\$ 220,018	\$ 206,171
Significant and other non-core items <sup>(3)</sup>	3,313	5,424	1,716	8,737	3,350
Operating expenses, core (non-GAAP) <sup>(3)(4)</sup>	\$ 107,690	\$ 103,591	\$ 102,845	\$ 211,281	\$ 202,821
Full-time equivalent staff (at period end)	3,155	3,096	3,187	3,155	3,187
Average assets	\$22,005,495	\$ 21,514,998	\$ 19,850,993	\$21,761,602	\$ 19,655,521
Efficiency ratio - GAAP	54.6%	58.1%	53.5%	56.3%	53.1%
Efficiency ratio - adjusted non-GAAP <sup>(4)</sup>	51.3%	51.7%	51.2%	51.5%	51.4%
Total operating expenses as a percentage of total average assets (annualized)	2.0%	2.0%	2.1%	2.0%	2.1%
Total operating expenses as a percentage of total average assets - adjusted non-GAAP <sup>(4)</sup> (annualized)	2.0%	1.9%	2.1%	1.9%	2.1%

<sup>(1)</sup> Included within the line item "Salaries, wages and employee benefits" in the Consolidated Statements of Income.

<sup>(2)</sup> Included within the line item "Other" operating expenses in the Consolidated Statements of Income.

<sup>(3)</sup> Significant items are defined as merger expenses. The other non-core item is the impairment of federal historic income tax credits.

<sup>(4)</sup> Please refer to the section entitled "Non-GAAP Financial Measures" for a reconciliation to the most directly comparable GAAP financial measure.

Total operating expenses were \$111.0 million in the second quarter of 2019, compared to \$109.0 million in the first quarter of 2019 and \$104.6 million in the second quarter of 2018. Operating expenses included \$3.0 million of merger expenses and \$271 thousand of impairment related to a federal historic income tax credit in the second quarter of 2019, \$5.4 million of merger expenses in the first quarter of 2019 and \$1.7 million of impairment related to federal historic income tax credits in the second quarter of 2018, each noted as "significant or non-core items" for the applicable periods. Operating expenses, core, a non-GAAP financial measure that excludes these significant and non-core items for each applicable period were \$107.7 million in the second quarter of 2019, an increase of \$4.1 million, or 4.0%, compared to core operating expenses of \$103.6 million in the first quarter of 2019, and an increase of \$4.9 million, or 4.7%, compared to core operating expenses of \$102.8 million in the second quarter of 2018. The increase in core operating expense in the second quarter of 2019, compared to the first quarter of 2019, was primarily due to increases in salaries and wages of \$3.1 million. The increase in core operating expense in the second quarter of 2019, compared to the second quarter of 2018, was primarily due to increases in salaries and wages of \$5.4 million and outside processing and service fees of \$1.5 million, partially offset by a decrease in FDIC insurance premiums of \$1.4 million. Expense related to our

efforts to implement upgrades to our core operating systems totaled \$3.2 million in the second quarter of 2018. We had no such expenses in the second or first quarter of 2019.

Total operating expenses of \$220.0 million in the six months ended June 30, 2019, increased \$13.8 million compared to \$206.2 million in the six months ended June 30, 2018. Operating expenses included \$8.5 million of merger expenses and \$271 thousand of impairment related to a federal historic income tax credit in the six months ended June 30, 2019 and included \$3.4 million of impairment related to federal historic income tax credits in the six months ended June 30, 2018, each noted as "significant or non-core items" for the applicable periods. Operating expenses, core, a non-GAAP financial measure, that excludes these significant and non-core items, was \$211.3 million in the six months ended June 30, 2019, an increase of \$8.5 million, or 4.2%, compared to core operating expense of \$202.8 million in the six months ended June 30, 2018, primarily due to increases in salaries and wages of \$9.8 million and outside processing and service fees of \$2.9 million, partially offset by a decrease in FDIC insurance premiums of \$3.7 million. Expense related to our efforts to implement upgrades to our core operating systems totaled \$4.2 million during the six months ended June 30, 2018. We had no such expenses in the six months ended June 30, 2019.

Salaries and wages were \$53.2 million in the second quarter of 2019, compared to \$50.1 million in the first quarter of 2019 and \$47.8 million in the second quarter of 2018. Salaries and wages increased \$3.1 million, or 6.1%, in the second quarter of 2019, compared to the first quarter of 2019 and increased \$5.4 million, or 11.2%, in the second quarter of 2019, compared to the second quarter of 2018. The increase in the second quarter of 2019, compared to the first quarter of 2019 was primarily due to an increase in mortgage loan commission expense of \$1.8 million and annual merit increases occurring in April, partially offset by an increase in the deferral of loan origination costs due to higher loan production. The increase in the second quarter of 2019, compared to the second quarter of 2018, was primarily due to increases in staff to support our strategic focus on growth in lending and annual merit increases, annual merit increases and an increase in mortgage loan commission expense. Salaries and wages were \$103.3 million in the six months ended June 30, 2019, an increase of \$9.8 million, compared to \$93.5 million during the six months ended June 30, 2018, primarily due to increases in staff to support our strategic focus on growth in lending and annual merit increases.

Employee benefits expense was \$9.0 million in the second quarter of 2019, compared to \$9.9 million in the first quarter of 2019 and \$8.3 million in the second quarter of 2018. Employee benefits expense decreased \$914 thousand, or 9.2%, in the second quarter of 2019, compared to the first quarter of 2019, primarily due to a decrease in payroll taxes due to certain employees meeting withholding thresholds. Employee benefits expense increased \$684 thousand, or 7.6%, in the second quarter of 2019, compared to the second quarter of 2018, primarily due to an increase in retirement contributions as a result of increased salary and wage expense. Employee benefits expense was \$18.9 million in the six months ended June 30, 2019, compared to \$18.3 million in the six months ended June 30, 2018.

Compensation expenses, which include salaries and wages and employee benefits, as a percentage of total operating expenses were 56.0% in the second quarter of 2019, 55.1% in the first quarter of 2019, and 53.7% in the second quarter of 2018. Compensation expenses as a percentage of total operating expenses were 55.5% in the six months ended June 30, 2019, compared to 54.2% in the six months ended June 30, 2018.

Occupancy expense was \$7.8 million in the second quarter of 2019, compared to \$8.3 million in the first quarter of 2019 and \$7.7 million in the second quarter of 2018. Occupancy expense decreased \$491 thousand, or 5.9%, in the second quarter of 2019, compared to the first quarter of 2019, primarily due to a decrease in building repair and maintenance. Occupancy expense included depreciation expense on buildings of \$1.7 million in the second quarter of 2019, compared to \$1.6 million in both the first quarter of 2019 and second quarter of 2018. Occupancy expense was \$16.1 million in the six months ended June 30, 2019, compared to \$15.7 million in the six months ended June 30, 2018. Occupancy expense increased \$373 thousand, in the six months ended June 30, 2019, compared to the six months ended June 30, 2018, primarily due to an increase in net rental expense.

Equipment and software expense was \$7.1 million in the second quarter of 2019, compared to \$7.0 million in the first quarter of 2019 and \$8.3 million in the second quarter of 2018. Equipment and software expense decreased \$1.2 million, or 14.5%, in the second quarter of 2019, compared to the second quarter of 2018, primarily due to a reduction in software license expense. Equipment and software expense of \$14.1 million in the six months ended June 30, 2019, decreased \$1.8 million compared to \$15.9 million in the six months ended June 30, 2018, primarily due to a reduction of software license and maintenance expense.

Outside processing and service fees are primarily comprised of amounts paid to third-party vendors related to the outsourcing of certain day-to-day functions that are integral to our ability to provide services to our customers, including our core operating system and other items, such as our debit card, electronic banking and wealth management platforms. Outside processing and service fees were \$12.2 million in the second quarter of 2019, compared to \$11.7 million in the first quarter of 2019 and \$10.7 million in the second quarter of 2018. Outside processing and service fees increased \$480 thousand, or 4.1%, in the second quarter of 2019, compared to the first quarter of 2019, and increased \$1.5 million, or 14.4%, compared to the second quarter of 2018. The

increase in the second quarter of 2019, compared to the second quarter of 2018 was primarily due to increased operating costs associated with enhancement in our overall technology platform. Outside processing and service fees were \$23.9 million in the six months ended June 30, 2019, an increase of \$2.9 million compared to \$21.0 million in the six months ended June 30, 2018, primarily due to increased operating costs associated with the enhancement in our overall technology platform.

FDIC insurance premiums were \$3.1 million in the second quarter of 2019, compared to \$3.3 million in the first quarter of 2019 and \$4.5 million in the second quarter of 2018. FDIC insurance premiums decreased \$223 thousand, or 6.7%, in the second quarter of 2019, compared to the first quarter of 2019, and decreased \$1.4 million compared to the second quarter of 2018. FDIC insurance premiums were \$6.4 million in the six months ended June 30, 2019, a decrease of \$3.7 million compared to \$10.1 million in the six months ended June 30, 2018. Changes in our FDIC insurance premiums are primarily due to changes in our assessment base, which consists of average consolidated total assets less average Tier 1 capital. Additionally, included in our FDIC insurance premiums through September 30, 2018, was a special assessment or surcharge on large banks, defined as banks with \$10 billion or more in assets, established under the Dodd-Frank Act to raise the deposit insurance fund minimum reserve ratio to 1.35%. The deposit insurance fund reached 1.36% on September 30, 2018, exceeding the statutorily required minimum reserve ratio of 1.35%. Accordingly, the last quarterly surcharge was reflected in large banks' December 2018 assessment invoices, which covered the assessment period from July 1 through September 30, 2018.

Professional fees were \$3.7 million in the second quarter of 2019, compared to \$2.7 million in the first quarter of 2019 and \$3.0 million in the second quarter of 2018. Professional fees increased \$1.0 million, or 37.6%, in the second quarter of 2019, compared to the first quarter of 2019, and increased \$680 thousand compared to the second quarter of 2018. The increase in the second quarter of 2019, compared to both the first quarter of 2019 and second quarter of 2018, was primarily attributable to an increase in consulting and legal fees. Professional fees were \$6.4 million in the six months ended June 30, 2019, compared to \$5.5 million in the six months ended June 30, 2018.

Advertising and marketing expenses were \$1.9 million in the second quarter of 2019, compared to \$1.8 million in the first quarter of 2019 and \$2.9 million in the second quarter of 2018. Advertising and marketing expense increased \$179 thousand, in the second quarter of 2019, compared to the first quarter of 2019, and decreased \$1.0 million compared to the second quarter of 2018. Advertising and marketing expenses were \$3.7 million in the six months ended June 30, 2019 decreased \$613 thousand, compared to \$4.3 million in the six months ended June 30, 2018, primarily due to communication and marketing expenses related to the conversion of our core operating systems during the six months ended June 30, 2018.

Credit-related expenses are comprised of other real estate ("ORE") net costs and loan collection costs. ORE net costs are comprised of costs to carry ORE, such as property taxes, insurance and maintenance costs, fair value write-downs after a property is transferred to ORE and net gains/losses from the disposition of ORE. Loan collection costs include legal fees, appraisal fees and other costs recognized in the collection of loans with deteriorated credit quality and in the process of foreclosure. Credit-related expenses were \$744 thousand in the second quarter of 2019, compared to \$660 thousand in the first quarter of 2019 and \$1.5 million in the second quarter of 2018. We recognized net gains from the sales of ORE properties of \$824 thousand in the second quarter of 2019, \$744 thousand in the first quarter of 2019 and \$23 thousand in the second quarter of 2018. Credit-related expenses were \$1.4 million in the six months ended June 30, 2019, compared to \$2.8 million in the six months ended June 30, 2018, which decreased primarily due to gains on sales of ORE properties.

Impairment of federal historic income tax credits were \$271 thousand in the second quarter of 2019, compared to no impairment in the first quarter of 2019 and \$1.7 million in the second quarter of 2018, recognized as the result of federal historic tax credits placed into service in the second quarter of 2019 and 2018. In the second quarter of 2019, the \$271 thousand of impairment, or \$214 thousand net of tax, was more than offset by the benefit received on the same tax credits which resulted in a reduction of income tax expense of \$260 thousand. In the second quarter of 2018, the \$1.7 million of impairment, or \$1.4 million net of tax, was more than offset by the benefit received on the same tax credits which resulted in a reduction of income tax expense of \$1.9 million. Impairment of federal historic income tax credits were \$271 thousand for the six months ended June 30, 2019, compared to \$3.4 million for the six months ended June 30, 2018, recognized as the result of federal historic tax credits placed into service during each period. In the six months ended June 30, 2019, the \$271 thousand of impairment, or \$214 thousand net of tax, was more than offset by the benefit received on the same tax credits which resulted in a reduction of income tax expense of \$260 thousand. In the six months ended June 30, 2018, the \$3.4 million of impairment, or \$2.6 million net of tax, was more than offset by the benefit received on the same tax credits which resulted in a reduction of income tax expense of \$3.4 million.

All other categories of operating expenses not discussed above totaled \$9.0 million in the second quarter of 2019, an increase of \$920 thousand, or 11.3%, compared to \$8.1 million in the first quarter of 2019, and increased \$836 thousand compared to \$8.2 million in the second quarter of 2018. All other categories of operating expenses totaled \$17.1 million in the six months ended June 30, 2019, an increase of \$1.3 million, or 8.3%, compared to \$15.8 million in the six months ended June 30, 2018.

Our efficiency ratio, which measures total operating expenses divided by the sum of net interest income plus noninterest income, was 54.6% in the second quarter of 2019, compared to 58.1% in the first quarter of 2019 and 53.5% in the second quarter of 2018. Our adjusted efficiency ratio, a non-GAAP financial measure, that excludes merger expenses, the change in fair value in loan servicing rights, amortization of intangibles, impairment of historic income tax credits, the net interest income FTE adjustment, and gain from sale of investment securities, as applicable, was 51.3% in the second quarter of 2019, compared to 51.7% in the first quarter of 2019 and 51.2% in the second quarter of 2018. Our efficiency ratio was 56.3% in the six months ended June 30, 2019, compared to 53.1% in the six months ended June 30, 2018. Our adjusted efficiency ratio, a non-GAAP financial measure, was 51.5% in the six months ended June 30, 2019, compared to 51.4% in the six months ended June 30, 2018.

Please refer to the section entitled "Non-GAAP Financial Measures" included within this Management's Discussion and Analysis of Financial Condition and Results of Operations for a reconciliation of core operating expenses and the adjusted efficiency ratio to the most directly comparable GAAP financial measures.

## Income Taxes

We record our federal income tax expense using our estimate of the effective income tax rate expected for the full-year and apply that rate on a year-to-date basis. The fluctuations in our effective income tax rate reflect changes in each period in the proportion of interest income exempt from taxation and other nondeductible expenses relative to pretax income and tax credits.

A reconciliation of expected income tax expense at the federal statutory income tax rate and the amounts recorded in our Consolidated Financial Statements were as follows:

(Dollars in thousands)	Three Months Ended						Six Months Ended			
	June 30, 2019		March 31, 2019		June 30, 2018		June 30, 2019		June 30, 2018	
	Amount	Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount	Rate
Tax at statutory rate	\$ 17,812	21.0%	\$ 16,088	21.0%	\$ 17,099	21.0%	\$ 33,900	21.0%	\$ 34,854	21.0%
Changes resulting from:										
Tax-exempt interest income	(1,764)	(2.1)	(1,825)	(2.4)	(1,599)	(2.0)	(3,589)	(2.2)	(3,114)	(1.9)
State taxes, net of federal benefit	71	0.1	63	0.1	66	0.1	134	0.1	210	0.1
Change in valuation allowance	—	—	—	—	(23)	—	—	—	(72)	—
Bank-owned life insurance adjustments	(460)	(0.5)	(359)	(0.5)	(350)	(0.4)	(819)	(0.5)	(537)	(0.3)
Income tax credits, net	(929)	(1.1)	(566)	(0.7)	(2,708)	(3.3)	(1,495)	(0.9)	(5,101)	(3.1)
Tax expense (benefit) in excess of compensation costs on share-based payments <sup>(1)</sup>	16	—	(322)	(0.4)	(399)	(0.5)	(306)	(0.2)	(1,765)	(1.1)
Other, net	480	0.6	586	0.7	348	0.4	1,066	0.6	914	0.6
Income tax expense	\$ 15,226	18.0%	\$ 13,665	17.8%	\$ 12,434	15.3%	\$ 28,891	17.9%	\$ 25,389	15.3%

<sup>(1)</sup> Represents excess tax benefits resulting from the exercise or settlement of share-based payment transactions.

Our effective federal income tax rate was 18.0% in the second quarter of 2019, compared to 17.8% in the first quarter of 2019 and 15.3% in the second quarter of 2018. Our effective tax rate in the second quarter of 2019 benefited from historic tax credits placed into service of \$260 thousand, compared to \$1.9 million in the second quarter of 2018. The income tax benefit from the tax credits placed into service was partially offset by impairment recorded on the same tax credits included within other operating expenses in our Consolidated Statements of Income. We had no uncertain tax positions during the three months ended June 30, 2019 and June 30, 2018.

Our effective federal income tax rate was 17.9% for the six months ended June 30, 2019, compared to 15.3% for the six months ended June 30, 2018. Our effective tax rate in the six months ended June 30, 2019 benefited from historic tax credits placed into service of \$260 thousand, compared to \$3.4 million in the six months ended June 30, 2018. The income tax benefit from the tax credits placed into service was partially offset by impairment recorded on the same tax credits included within other operating expenses in our Consolidated Statements of Income. We had no uncertain tax positions during the six months ended June 30, 2019 and 2018.

## Liquidity

Liquidity risk is the potential that we will be unable to meet our obligations as they come due because of an inability to liquidate assets or obtain adequate funding (referred to as "funding liquidity risk") or that we cannot easily unwind or offset specific exposures without significantly lowering market prices because of inadequate market depth or market disruptions (referred to as "market liquidity risk").

We manage our funding liquidity risk to ensure stable, reliable and cost-effective sources of funds are available to satisfy deposit withdrawals and lending and investment opportunities. Our ability to meet our current financial obligations is a function of our balance sheet structure, our ability to liquidate assets and our access to alternative sources of funds. We manage our funding needs by maintaining a level of liquid funds through our asset/liability management process. Our largest sources of liquidity on a consolidated basis is our deposit base that comes from consumer, business and municipal customers within our local markets, principal payments on loans, maturing investment securities, cash held at the FRB and unpledged investment securities available-for-sale. Total deposits increased \$286.2 million during the six months ended June 30, 2019. Our loan-to-total deposits ratio was 98.1% at June 30, 2019 and 95.6% at December 31, 2018. We had \$164.8 million of cash deposits held at the FRB at June 30, 2019, compared to \$157.1 million at December 31, 2018. At June 30, 2019, we had unpledged investment securities available-for-sale with an amortized cost of \$2.4 billion and available unused wholesale sources of liquidity, including FHLB advances and borrowings from the discount window of the FRB.

Chemical Bank is a member of the FHLB and as such has access to short-term and long-term advances from the FHLB that are generally secured by residential mortgage first lien loans. We had short-term and long-term FHLB advances outstanding of \$2.99 billion at June 30, 2019. Additional borrowing availability from the FHLB, subject to certain requirements, was \$1.60 billion at June 30, 2019. We can also borrow from the FRB's discount window to meet short-term liquidity requirements. These borrowings are required to be secured by investment securities and/or certain loan types, with each category of assets carrying various borrowing capacity percentages. At June 30, 2019, we maintained an unused borrowing capacity of \$110.8 million with the FRB's discount window based upon pledged collateral as of that date. We also had the ability to borrow an additional \$425.0 million of federal funds. In addition, Chemical Bank is a member of the AFX, through which it has the ability to borrow \$565.0 million from overnight lines of credit from multiple third-party financial institutions at June 30, 2019. Management believes that our borrowing capacity could be expanded, if deemed necessary, as we have additional borrowing capacity available at the FHLB, and we have a significant amount of additional assets that could be used as collateral at the FRB's discount window.

We manage our liquidity position to provide the cash necessary to pay dividends to shareholders, invest in new subsidiaries, enter new banking markets, pursue investment opportunities and satisfy other operating requirements. Our primary source of liquidity is dividends from Chemical Bank.

Federal and state banking laws place certain restrictions on the amount of dividends that a bank may pay to its parent company. During the six months ended June 30, 2019, Chemical Bank paid \$50.0 million in dividends to us, and we paid cash dividends to shareholders of \$49.0 million. The earnings of Chemical Bank are the principal source of funds to pay cash dividends to our shareholders. Chemical Bank had net income of \$74.4 million during the six months ended June 30, 2019 and net income of \$295.3 million during the year ended December 31, 2018. Cash dividends to shareholders are dependent upon earnings, capital requirements, regulatory restraints and other factors affecting Chemical Bank.

The following liquidity ratios compare certain assets and liabilities to total deposits or total assets.

	<b>June 30, 2019</b>	<b>December 31, 2018</b>
Investment securities carried at fair value to total deposits	<b>21.2%</b>	19.4%
Loans to total deposits <sup>(1)</sup>	<b>98.1</b>	95.6
Interest-earning assets to total assets	<b>89.9</b>	89.6
Interest-bearing deposits to total deposits	<b>75.3</b>	75.6

<sup>(1)</sup> For liquidity purposes, collateralized customer deposits are treated similarly to deposits and are included in this calculation.



## Market Risk

Market risk is the risk to a financial institutions' condition resulting from adverse movements in market rates or prices, including, but not limited to, interest rates, foreign exchange rates, commodity prices, or equity prices. Interest rate risk, a form of market risk, is the current and prospective risk to earnings or capital arising from movement in interest rates. Interest rate risk is due to the difference in the repricing and maturity dates between financial assets and funding sources, as well as changes in the relationship between benchmark rate indices used to reprice various assets and liabilities, product options available to customers, competitive pressures and other variables. Our net interest income is largely dependent upon the effective management of interest rate risk. Our goal is to avoid a significant decrease in net interest income, and thus an adverse impact on our profitability, in periods of changing interest rates. Sensitivity of earnings to interest rate changes arises when yields on assets change differently from the interest costs on liabilities. Interest rate sensitivity is determined by the amount of interest-earning assets and interest-bearing liabilities repricing within a specific time period and the magnitude by which interest rates change on the various types of interest-earning assets and interest-bearing liabilities. The management of interest rate sensitivity includes monitoring the maturities and repricing opportunities of interest-earning assets and interest-bearing liabilities. Our interest rate risk is managed through policies and risk limits approved by the boards of directors of the Corporation and Chemical Bank and an Asset and Liability Committee ("ALCO"). The ALCO, which is comprised of executive and senior management from various areas of the Corporation and Chemical Bank, including finance, lending, investments and deposit gathering, meets regularly to execute asset and liability management strategies. The ALCO establishes guidelines and monitors the sensitivity of earnings to changes in interest rates. The goal of the ALCO process is to manage the impact on net interest income and the net present value of future cash flows of probable changes in interest rates within authorized risk limits.

The primary technique utilized to measure our interest rate risk is simulation analysis. Simulation analyses forecast the effects on our balance sheet structure and net interest income under a variety of scenarios that incorporate changes in interest rates, the shape of the U.S. Treasury yield curve, interest rate relationships and the mix of assets and liabilities and loan prepayments. These forecasts are compared against net interest income projected in a stable interest rate environment. While many assets and liabilities reprice either at maturity or in accordance with their contractual terms, several balance sheet components demonstrate characteristics that require an evaluation to more accurately reflect their repricing behavior. Key assumptions in the simulation analysis include prepayments on loans, probable calls of investment securities, changes in market conditions, loan volumes and loan pricing, deposit sensitivity and customer preferences. These assumptions are inherently uncertain as they are subject to fluctuation and revision in a dynamic environment. As a result, the simulation analyses cannot precisely forecast the impact of rising and falling interest rates on net interest income. Actual results will differ from simulated results due to many other factors, including changes in balance sheet components, interest rate changes, changes in market conditions and management strategies.

At June 30, 2019 and December 31, 2018, we projected the change in net interest income during both the following 12 and 24 months assuming immediate parallel moves in interest rates. These projections were based on our assets and liabilities remaining static over the next 24 months and estimates of the potential impact that changes in interest rates may have on the value and prepayment speeds on all components of our loan and investment portfolios, as well as embedded options and cash flows of other assets and liabilities. The ALCO regularly monitors our forecasted net interest income sensitivity to ensure that it remains within established limits. The estimated impact on our net interest income at June 30, 2019 and December 31, 2018, assuming immediate parallel moves in interest rates is presented in the table below.

	June 30, 2019		December 31, 2018	
	Following 12 months	Following 24 months	Following 12 months	Following 24 months
+400 basis points	3.5%	4.3%	(0.5)%	(0.5)%
+300 basis points	2.9	3.6	(0.8)	(0.7)
+200 basis points	2.2	2.9	(0.7)	(0.7)
+100 basis points	1.4	1.9	(0.1)	(0.2)
-100 basis points	(4.1)	(5.9)	(1.1)	(1.1)
-200 basis points	(10.0)	(11.9)	(7.7)	(9.2)
-300 basis points	(10.3)	(11.8)	(18.0)	(22.4)
-400 basis points	(10.3)	(11.8)	(24.0)	(28.4)



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

Information concerning quantitative and qualitative disclosures about market risk is contained in the discussion regarding interest rate risk and sensitivity under the captions "Liquidity" and "Market Risk" herein and in our Annual Report on Form 10-K for the year ended December 31, 2018, which are here incorporated by reference.

Since December 31, 2018, we do not believe that there has been a material change in the nature or categories of our primary market risk exposure, or the particular markets that present the primary risk of loss to us. Our market risk exposure is mainly comprised of vulnerability to interest rate risk. Prevailing interest rates and interest rate relationships are largely determined by market factors that are beyond our control. Certain information provided in response to this item consists of forward-looking statements. Reference is made to the section captioned "Forward-Looking Statements" in this report for a discussion of the limitations on our responsibility for such statements.

### **Item 4. Controls and Procedures**

An evaluation was performed under the supervision and with the participation of the Corporation's management, including the Chief Executive Officer and Chief Financial Officer, of the effectiveness of the design and operation of the Corporation's disclosure controls and procedures as of the end of the period covered by this report. Based on and as of the time of that evaluation, the Corporation's management, including the Chief Executive Officer and Chief Financial Officer, concluded that the Corporation's disclosure controls and procedures were effective to ensure that information required to be disclosed by the Corporation in the reports it files or submits under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the SEC's rules and forms. There was no change in the Corporation's internal control over financial reporting that occurred during the quarter ended June 30, 2019 that has materially affected, or that is reasonably likely to materially affect, the Corporation's internal control over financial reporting.

## Part II. Other Information

### Item 1. Legal Proceedings

On February 22, 2016, two putative class action and derivative complaints were filed in the Circuit Court for Oakland County, Michigan by individuals purporting to be shareholders of Talmer. The actions are styled *Regina Gertel Lee v. Chemical Financial Corporation, et. al.*, Case No. 2016-151642-CB and *City of Livonia Employees' Retirement System v. Chemical Financial Corporation et. al.*, Case No. 2016-151641-CB. These complaints purport to be brought derivatively on behalf of Talmer against the individual defendants, and individually and on behalf of all others similarly situated against Talmer and Chemical (collectively, the "Defendants"). The complaints allege, among other things, that the directors of Talmer breached their fiduciary duties to Talmer's shareholders in connection with the merger by approving a transaction pursuant to an allegedly inadequate process that undervalues Talmer and includes preclusive deal protection provisions, and that Chemical allegedly aided and abetted the Talmer directors in breaching their duties to Talmer's shareholders. The complaints also allege that the individual defendants have been unjustly enriched. Both complaints seek various remedies on behalf of the putative class (consisting of all shareholders of Talmer who are not related to or affiliated with any defendant). They request, among other things, that the Court enjoin the merger from being consummated in accordance with its agreed-upon terms, direct the Talmer directors to exercise their fiduciary duties, rescind the merger agreement to the extent that it is already implemented, award the plaintiff all costs and disbursements in each respective action (including reasonable attorneys' and experts' fees), and grant such further relief as the court deems just and proper. The *City of Livonia* plaintiff amended its complaint on April 21, 2016 to add additional factual allegations, including but not limited to allegations that Keefe Bruyette & Woods, Inc. ("KBW") served as a financial advisor for the proposed merger despite an alleged conflict of interest, that Talmer's board acted under actual or potential conflicts of interest, and that the defendants omitted and/or misrepresented material information about the proposed merger in the Form S-4 Registration Statement relating to the proposed merger. These two cases were consolidated as *In re Talmer Bancorp Shareholder Litigation*, case number 2016-151641-CB, per an order entered on May 12, 2016. On October 31, 2016, the plaintiffs in this consolidated action again amended their complaint, adding additional factual allegations, adding KBW as a defendant, and asserting that KBW acted in concert with Chemical to aid and abet breaches of fiduciary duty by Talmer's directors. The Defendants all filed motions for summary disposition seeking dismissal of all claims with prejudice. The Court issued an opinion and order on those motions on May 4, 2017 and granted dismissal to Chemical, but denied the motions filed by KBW and the individual defendants. KBW and the individual defendants filed an application seeking leave to appeal the Court's ruling to the Michigan Court of Appeals. That application was denied by the Michigan Court of Appeals on August 16, 2017. On June 8, 2017, the Defendants filed a notice with the Court that the plaintiffs had failed to timely certify a class as required by the Michigan Court Rules. Upon the filing of that notice, the *City of Livonia* case became an individual action brought by the two named plaintiffs, and cannot proceed as a class action. On October 19, 2017, the Defendants filed motions for summary disposition under MCR 2.116(C)-(10) in the *City of Livonia* case, again seeking the dismissal of the case. A hearing on those motions was held on April 11, 2018. On May 11, 2018, the Court issued its opinion and order granting the motion of the Defendants, and dismissing the case. On May 25, 2018, the plaintiffs filed a claim of appeal from the Court's decision with the Michigan Court of Appeals. By order dated August 7, 2018, the Michigan Court of Appeals consolidated the *City of Livonia* case with the *Nicholl* case discussed below. A ruling from the Court is awaited.

On June 16, 2016, the same putative class plaintiff that filed the *City of Livonia* state court action discussed in the preceding paragraph filed a complaint in the United States District Court for the Eastern District of Michigan, styled *City of Livonia Employees' Retirement System v. Chemical Financial Corporation, et. al.*, Docket No. 1:16-cv-12229. The plaintiff purports to bring this action "individually and on behalf of all others similarly situated," and requests certification as a class action. The Complaint alleges violations of Section 14(a) and 20(a) of the Securities Exchange Act of 1934 and alleges, among other things, that the Defendants issued materially incomplete and misleading disclosures in the Form S-4 Registration Statement relating to the proposed merger. The Complaint contains requests for relief that include, among other things, that the Court enjoin the proposed transaction unless and until additional information is provided to Talmer's shareholders, declare that the Defendants violated the securities laws in connection with the proposed merger, award compensatory damages, interest, attorneys' and experts' fees, and that the Court grant such other relief as it deems just and proper. Talmer, Chemical, and the individual defendants all believe that the claims asserted against each of them in this lawsuit are without merit and intend to vigorously defend against this lawsuit. On October 18, 2016, the Federal Court entered a stipulated order staying this action until the Oakland County Circuit Court issues rulings on motions for summary disposition *In re Talmer Bancorp Shareholder Litigation*, case number 2016-151641-CB. Following the Oakland County Circuit Court's denial of the Motions by KBW and the individual defendants and their ensuing application for leave to appeal that ruling, the Federal Court issued an order extending the stay of this action. On November 13, 2017, the Federal Court issued an Order Directing Plaintiff To Show Cause Why The Stay Should Not Be Lifted. On June 29, 2018, the Court issued an Order Lifting Stay. The plaintiff filed an amended complaint on July 27, 2018. In response to the amended complaint, the Defendants filed a Motion To Dismiss on August 24, 2018. A ruling on the Defendant's motion is awaited. On November 8, 2018, the Court entered an Order Staying Case Pending Appeal And Holding In Abeyance Motion To Dismiss. In the Order, the Court ruled that the case is stayed pending resolution of the appeals in the state court actions. The Order provides

that if the Michigan Court of Appeals upholds the trial court decisions, and that ruling becomes final, the doctrine of collateral estoppel will preclude the plaintiffs in the City of Livonia and Nicholl cases from pursuing the federal case.

In response to the failure of the *City of Livonia* case to qualify as a class action, on July 31, 2017, the same attorneys who filed the *City of Livonia* action filed a new lawsuit in the Oakland County, Michigan Circuit Court, based on the Talmer transaction. That case is styled *Kevin Nicholl v Gary Torgow et al*, Case No. 2017-160058-CB. The *Nicholl* case makes substantially the same claims as were brought in the *City of Livonia* case, and seeks certification of a shareholder class. The *Nicholl* case has been assigned to Judge Wendy Potts, the same judge presiding over the *City of Livonia* case. On November 22, 2017, the plaintiff filed a First Amended Complaint purporting to add the City of Livonia Employees' Retirement System and Regina Gertel Lee as additional named plaintiffs in the case. The Defendants moved to strike the class allegations in the *Nicholl* case based on the failure of the plaintiffs to timely file a motion to certify a class. On April 2, 2018, the Court entered an opinion and order confirming that the class allegations in the *Nicholl* case are stricken, and the *Nicholl* case will proceed as an individual action only. On April 23, 2018, the plaintiffs filed a claim of appeal with the Michigan Court of Appeals from the Court's April 2, 2018 opinion and order.

As in the *City of Livonia* case, the Defendants filed motions for summary disposition in the *Nicholl* case, seeking dismissal of the *Nicholl* case. Argument on these motions was heard on April 11, 2018, together with arguments on the summary disposition motions of the Defendants in the *City of Livonia* case. On May 8, 2018 the Court issued its opinion and order granting the motion of the Defendants, and dismissing the *Nicholl* case. On May 25, 2018 the plaintiffs filed a claim of appeal from the Court's decision with the Michigan Court of Appeals. The Court's dismissal of the *Nicholl* case obviates the April 23, 2018 appeal filed by the *Nicholl* plaintiff with respect to the Court's order of April 2, 2018 finding that the plaintiff failed to timely certify a class in the *Nicholl* litigation. By order dated August 7, 2018, the Michigan Court of Appeals consolidated the *Nicholl* case with the *City of Livonia* case. A ruling from the Court is awaited.

On January 3, 2018, the plaintiffs in the *City of Livonia* case filed a Motion For Voluntary Dismissal Without Prejudice. Defendants filed an opposition to that motion. The Court did not rule on that motion, pending ruling on the Defendant's summary disposition motions in the *City of Livonia* and *Nicholl* cases. The Court's dismissal of the City of Livonia case obviates the need for a ruling on this motion.

In addition, we are subject to certain legal actions arising in the ordinary course of business. In the opinion of management, after consultation with legal counsel, the ultimate disposition of these matters is not expected to have a material adverse effect on our Consolidated Financial Condition or Results of Operations.

## Item 1A. Risk Factors

Information concerning risk factors is contained in this report under the heading "Forward-Looking Statements" and in Item 1A, "Risk Factors," in the Corporation's Annual Report on Form 10-K for the year ended December 31, 2018.

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

The following schedule summarizes our total monthly share repurchase activity for the three months ended June 30, 2019:

Period Beginning on First Day of Month Ended	Issuer Purchases of Equity Securities		
	Total Number of Shares Purchased <sup>(1)</sup>	Average Price Paid Per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs
April 30, 2019	1,831	\$ 43.81	—
May 31, 2019	830	40.30	—
June 30, 2019	3,157	39.90	—
Total	5,818	\$ 41.19	—

<sup>(1)</sup> Represents shares delivered or attested in satisfaction of the exercise price and/or tax withholding obligations by employees who received shares of our common stock in 2019 under our share-based compensation plans, as these plans permit employees to use our stock to satisfy such obligations based on the market value of the stock on the date of exercise or date of vesting, as applicable.

## Item 6. Exhibits

Exhibits. The following exhibits are filed as part of this report on Form 10-Q:

<b>Exhibit Number</b>	<b>Document</b>
2.1	<a href="#"><u>Agreement and Plan of Merger, dated as of January 27, 2019, by and between TCF Financial Corporation and Chemical Financial Corporation (included as Annex A to the joint proxy statement/prospectus contained in the Form S-4/A Registration Statement (File No. 333-230635) filed by the registrant on May 2, 2019). Here incorporated by reference.</u></a>
3.1	<a href="#"><u>Restated Articles of Incorporation. Previously filed as Exhibit 3.1 to the registrant's Quarterly Report on Form 10-Q for the quarter ended March 31, 2017, filed with the SEC on May 10, 2017. Here incorporated by reference.</u></a>
3.2	<a href="#"><u>Bylaws. Previously filed as Exhibit 3.1 to the registrant's Form 8-K filed with the SEC on January 28, 2019. Here incorporated by reference.</u></a>
4.1	<a href="#"><u>Restated Articles of Incorporation. Exhibit 3.1 is here incorporated by reference.</u></a>
4.2	<a href="#"><u>Bylaws. Exhibit 3.2 is here incorporated by reference.</u></a>
10.1	<a href="#"><u>Chemical Financial Corporation Stock Incentive Plan of 2019 (incorporated by reference to Appendix A to Chemical Financial Corporation's Definitive Proxy Statement, filed on March 28, 2019, and incorporated herein by reference)</u></a>
10.2	<a href="#"><u>Lease by and between GPC Adams LLC and Chemical Bank, dated May 31, 2019. Previously filed as Exhibit 10.1 to the registrant's Form 8-K filed with the SEC on June 6, 2019. Here incorporated by reference.</u></a>
31.1	<a href="#"><u>Certification of Chief Executive Officer.</u></a>
31.2	<a href="#"><u>Certification of Chief Financial Officer.</u></a>
32.1	<a href="#"><u>Certification pursuant to 18 U.S.C. §1350.</u></a>
101.1	Interactive Data File.

## Signatures

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

### CHEMICAL FINANCIAL CORPORATION

Date: July 31, 2019

By: /s/ David T. Provost

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David T. Provost  
Chief Executive Officer and President  
(Principal Executive Officer)

Date: July 31, 2019

By: /s/ Dennis L. Klaeser

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Dennis L. Klaeser  
Executive Vice President and Chief Financial Officer  
(Principal Financial Officer)

Date: July 31, 2019

By: /s/ Kathleen S. Wendt

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Kathleen S. Wendt  
Executive Vice President and Deputy Chief Financial Officer  
(Principal Accounting Officer)

## Exhibit Index

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