# Section 1: 10-Q (10-Q)

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

# FORM 10-Q

☒ **QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the quarterly period ended September 30, 2019

**OR**

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the transition period from___________________to___________________

Commission File Number: 001-13695

(Exact name of registrant as specified in its charter)

| Delaware | 16-1213679 |
|---|---|
| (State or other jurisdiction of incorporation or organization) | (I.R.S. Employer Identification No.) |
| 5790 Widewaters Parkway, DeWitt, New York | 13214-1883 |
| (Address of principal executive offices) | (Zip Code) |

(315) 445-2282
(Registrant's telephone number, including area code)

NONE
(Former name, former address and former fiscal year, if changed since last report)

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

| Title of each class | Trading Symbol(s) | Name of each exchange on which registered |
|---|---|---|
| Common Stock, $1.00 par value per share | CBU | New York Stock Exchange |

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

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

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

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

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

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

Indicate the number of shares outstanding of each of the issuer’s classes of common stock, as of the latest practicable date. 51,701,790 shares of Common Stock, $1.00 par value per share, were outstanding on October 31, 2019.

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**Part I. Financial Information**
**Item 1. Financial Statements**

**COMMUNITY BANK SYSTEM, INC.**
**CONSOLIDATED STATEMENTS OF CONDITION (Unaudited)**
**(In Thousands, Except Share Data)**

| | September 30, 2019 | December 31, 2018 |
|---|---|---|
| Assets: | | |
| Cash and cash equivalents | $ 1,014,042 | $ 211,834 |
| Available-for-sale investment securities (cost of $2,392,004 and $2,952,278, respectively) | 2,437,102 | 2,936,049 |
| Equity and other securities (cost of $43,680 and $44,678, respectively) | 44,640 | 45,609 |
| Loans held for sale, at fair value | 0 | 83 |
| | | |
| Loans | 6,853,191 | 6,281,121 |
| Allowance for loan losses | (49,423) | (49,284) |
| Net loans | 6,803,768 | 6,231,837 |
| | | |
| Goodwill, net | 773,610 | 733,503 |
| Core deposit intangibles, net | 17,872 | 18,596 |
| Other intangibles, net | 49,203 | 55,250 |
| Intangible assets, net | 840,685 | 807,349 |
| | | |
| Premises and equipment, net | 169,933 | 119,988 |
| Accrued interest and fees receivable | 34,126 | 31,048 |
| Other assets | 253,001 | 223,498 |
| | | |
| Total assets | $ 11,597,297 | $ 10,607,295 |
| | | |
| Liabilities: | | |
| Noninterest-bearing deposits | $ 2,549,395 | $ 2,312,816 |
| Interest-bearing deposits | 6,618,890 | 6,009,555 |
| Total deposits | 9,168,285 | 8,322,371 |
| | | |
| Short-term borrowings | 0 | 54,400 |
| Securities sold under agreement to repurchase, short-term | 233,333 | 259,367 |
| Other long-term debt | 4,328 | 1,976 |
| Subordinated notes payable | 13,814 | 0 |
| Subordinated debt held by unconsolidated subsidiary trusts | 77,320 | 97,939 |
| Accrued interest and other liabilities | 259,796 | 157,459 |
| Total liabilities | 9,756,876 | 8,893,512 |
| | | |
| Commitments and contingencies (See Note K) | | |
| | | |
| Shareholders' equity: | | |
| Preferred stock, $1.00 par value, 500,000 shares authorized, 0 shares issued | 0 | 0 |
| Common stock, $1.00 par value, 75,000,000 shares authorized; 51,842,966 and 51,576,839 shares issued, respectively | 51,843 | 51,577 |
| Additional paid-in capital | 921,682 | 911,748 |
| Retained earnings | 861,254 | 795,563 |
| Accumulated other comprehensive income (loss) | 2,470 | (45,305) |
| Treasury stock, at cost (182,912 shares, including 178,361 shares held by deferred compensation arrangements at September 30, 2019 and 319,015 shares including 207,403 shares held by deferred compensation arrangements at December 31, 2018, respectively) | (6,875) | (11,528) |
| Deferred compensation arrangements (178,361 and 207,403 shares, respectively) | 10,047 | 11,728 |
| Total shareholders' equity | 1,840,421 | 1,713,783 |
| | | |
| Total liabilities and shareholders' equity | $ 11,597,297 | $ 10,607,295 |

The accompanying notes are an integral part of the consolidated financial statements.

**COMMUNITY BANK SYSTEM, INC.**
**CONSOLIDATED STATEMENTS OF INCOME (Unaudited)**
**(In Thousands, Except Per-Share Data)**

| | Three Months Ended September 30, | | Nine Months Ended September 30, | |
|---|---|---|---|---|
| | 2019 | 2018 | 2019 | 2018 |
| Interest income: | | | | |
| Interest and fees on loans | $ 79,931 | $ 72,256 | $ 227,701 | $ 212,849 |
| Interest and dividends on taxable investments | 15,862 | 15,421 | 49,376 | 47,462 |
| Interest on nontaxable investments | 2,854 | 3,226 | 8,603 | 10,001 |
| Total interest income | 98,647 | 90,903 | 285,680 | 270,312 |
| Interest expense: | | | | |
| Interest on deposits | 5,859 | 2,764 | 14,526 | 7,277 |
| Interest on borrowings | 347 | 796 | 1,397 | 1,722 |
| Interest on subordinated notes payable | 161 | 0 | 161 | 0 |
| Interest on subordinated debt held by unconsolidated subsidiary trusts | 1,004 | 1,145 | 3,161 | 3,645 |
| Total interest expense | 7,371 | 4,705 | 19,245 | 12,644 |
| Net interest income | 91,276 | 86,198 | 266,435 | 257,668 |
| Provision for loan losses | 1,751 | 2,215 | 5,573 | 8,342 |
| Net interest income after provision for loan losses | 89,525 | 83,983 | 260,862 | 249,326 |
| Noninterest revenues: | | | | |
| Deposit service fees | 16,920 | 16,127 | 48,780 | 54,268 |
| Other banking revenues | 945 | 1,536 | 3,628 | 3,942 |
| Employee benefit services | 24,329 | 23,265 | 72,170 | 68,813 |
| Insurance services | 8,527 | 8,270 | 24,718 | 23,044 |
| Wealth management services | 6,363 | 6,168 | 19,290 | 19,370 |
| Gain on sales of investment securities, net | 0 | 0 | 4,882 | 0 |
| Unrealized gain on equity securities | 10 | 743 | 28 | 722 |
| Loss on debt extinguishment | 0 | (318) | 0 | (318) |
| Total noninterest revenues | 57,094 | 55,791 | 173,496 | 169,841 |
| Noninterest expenses: | | | | |
| Salaries and employee benefits | 56,061 | 51,062 | 163,448 | 155,323 |
| Occupancy and equipment | 9,801 | 9,770 | 29,708 | 29,738 |
| Data processing and communications | 10,675 | 10,509 | 30,475 | 29,463 |
| Amortization of intangible assets | 3,960 | 4,427 | 11,994 | 13,780 |
| Legal and professional fees | 2,595 | 2,522 | 7,999 | 8,047 |
| Business development and marketing | 2,604 | 2,587 | 8,532 | 7,301 |
| Acquisition expenses | 6,061 | (832) | 7,789 | (769) |
| Other expenses | 5,172 | 5,188 | 16,812 | 14,793 |
| Total noninterest expenses | 96,929 | 85,233 | 276,757 | 257,676 |
| Income before income taxes | 49,690 | 54,541 | 157,601 | 161,491 |
| Income taxes | 10,472 | 11,435 | 31,422 | 33,673 |
| Net income | $ 39,218 | $ 43,106 | $ 126,179 | $ 127,818 |
| Basic earnings per share | $ 0.76 | $ 0.84 | $ 2.44 | $ 2.49 |
| Diluted earnings per share | $ 0.75 | $ 0.83 | $ 2.41 | $ 2.46 |

The accompanying notes are an integral part of the consolidated financial statements.

**COMMUNITY BANK SYSTEM, INC.**
**CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (Unaudited)**
**(In Thousands)**

| | Three Months Ended September 30, | | Nine Months Ended September 30, | |
|---|---|---|---|---|
| | 2019 | 2018 | 2019 | 2018 |
| **Pension and other post retirement obligations:** | | | | |
| Amortization of actuarial losses included in net periodic pension cost, gross | $ 651 | $ 304 | $ 1,954 | $ 910 |
| Tax effect | (158) | (74) | (477) | (221) |
| Amortization of actuarial losses included in net periodic pension cost, net | 493 | 230 | $ 1,477 | 689 |
| Amortization of prior service cost included in net periodic pension cost, gross | (28) | (105) | (86) | (359) |
| Tax effect | 6 | 25 | 21 | 87 |
| Amortization of prior service cost included in net periodic pension cost, net | (22) | (80) | (65) | (272) |
| Initial projected benefit obligation recognized upon plan adoption, gross | 0 | (775) | 0 | (775) |
| Tax effect | 0 | 189 | 0 | 189 |
| Initial projected benefit obligation recognized upon plan adoption, net | 0 | (586) | 0 | (586) |
| Other comprehensive income (loss) related to pension and other post-retirement obligations, net of taxes | 471 | (436) | 1,412 | (169) |
| | | | | |
| **Unrealized gains (losses) on available-for-sale securities:** | | | | |
| Net unrealized holding gains (losses) arising during period, gross | 8,756 | (20,094) | 66,208 | (76,705) |
| Tax effect | (2,136) | 4,879 | (16,157) | 18,639 |
| Net unrealized holding gains (losses) arising during period, net | 6,620 | (15,215) | 50,051 | (58,066) |
| Reclassification adjustment for net gains included in net income, gross | 0 | 0 | (4,882) | 0 |
| Tax effect | 0 | 0 | 1,194 | 0 |
| Reclassification adjustment for net gains included in net income, net | 0 | 0 | (3,688) | 0 |
| Reclassification of other comprehensive income due to change in accounting principle – equity securities | 0 | 0 | 0 | (208) |
| Other comprehensive income/(loss) related to unrealized gains (losses) on available-for-sale securities, net of taxes | 6,620 | (15,215) | 46,363 | (58,274) |
| Other comprehensive income (loss), net of tax | 7,091 | (15,651) | 47,775 | (58,443) |
| Net income | 39,218 | 43,106 | 126,179 | 127,818 |
| Comprehensive income | $ 46,309 | $ 27,455 | $ 173,954 | $ 69,375 |

| | As of | |
|---|---|---|
| | September 30, 2019 | December 31, 2018 |
| **Accumulated Other Comprehensive Income (Loss) By Component:** | | |
| Unrealized (loss) for pension and other post-retirement obligations | $ (41,629) | $ (43,497) |
| Tax effect | 10,204 | 10,660 |
| Net unrealized (loss) for pension and other post-retirement obligations | (31,425) | (32,837) |
| | | |
| Unrealized gain (loss) on available-for-sale securities | 45,097 | (16,229) |
| Tax effect | (10,994) | 3,969 |
| Reclassification of other comprehensive income due to change in accounting principle – equity securities | (208) | (208) |
| Net unrealized gain (loss) on available-for-sale securities | 33,895 | (12,468) |
| | | |
| Accumulated other comprehensive income (loss) | $ 2,470 | $ (45,305) |

The accompanying notes are an integral part of the consolidated financial statements.

**COMMUNITY BANK SYSTEM, INC.**
**CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY (Unaudited)**
**Three months ended September 30, 2019 and 2018**
**(In Thousands, Except Share Data)**

| | Common Stock | | Additional | | Accumulated Other | | | |
|---|---|---|---|---|---|---|---|---|
| | Shares Outstanding | Amount Issued | Paid-In Capital | Retained Earnings | Comprehensive (Loss) | Treasury Stock | Deferred Compensation Arrangements | Total |
| Balance at June 30, 2019 | 51,570,608 | $ 51,806 | $ 917,855 | $ 843,288 | $ (4,621) | $ (8,797) | $ 9,979 | $ 1,809,510 |
| Net income | | | | 39,218 | | | | 39,218 |
| Other comprehensive income, net of tax | | | | | 7,091 | | | 7,091 |
| Cash dividends declared: | | | | | | | | |
| Common, $0.41 per share | | | | (21,252) | | | | (21,252) |
| Common stock activity under employee stock ownership plan | 37,542 | 37 | 1,254 | | | | | 1,291 |
| Stock-based compensation | | | 1,241 | | | | | 1,241 |
| Treasury stock issued to benefit plans, net | 51,904 | | 1,332 | | | 1,922 | 68 | 3,322 |
| Balance at September 30, 2019 | 51,660,054 | $ 51,843 | $ 921,682 | $ 861,254 | $ 2,470 | $ (6,875) | $ 10,047 | $ 1,840,421 |
| Balance at June 30, 2018 | 51,085,874 | $ 51,512 | $ 904,913 | $ 750,779 | $ (46,491) | $ (15,334) | $ 11,580 | $ 1,656,959 |
| Net income | | | | 43,106 | | | | 43,106 |
| Other comprehensive loss, net of tax | | | | | (15,651) | | | (15,651) |
| Cash dividends declared: | | | | | | | | |
| Common, $0.38 per share | | | | (19,482) | | | | (19,482) |
| Common stock activity under employee stock ownership plan | 35,261 | 35 | 1,115 | | | | | 1,150 |
| Stock-based compensation | | | 1,211 | | | | | 1,211 |
| Treasury stock issued to benefit plans, net | 15,541 | | 451 | | | 531 | 70 | 1,052 |
| Balance at September 30, 2018 | 51,136,676 | $ 51,547 | $ 907,690 | $ 774,403 | $ (62,142) | $ (14,803) | $ 11,650 | $ 1,668,345 |

The accompanying notes are an integral part of the consolidated financial statements.

**COMMUNITY BANK SYSTEM, INC.**
**CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY (Unaudited)**
**Nine months ended September 30, 2019 and 2018**
**(In Thousands, Except Share Data)**

| | Common Stock | | Additional | | Accumulated Other | | | |
|---|---|---|---|---|---|---|---|---|
| | Shares Outstanding | Amount Issued | Paid-In Capital | Retained Earnings | Comprehensive (Loss) | Treasury Stock | Deferred Compensation Arrangements | Total |
| Balance at December 31, 2018 | 51,257,824 | $ 51,577 | $ 911,748 | $ 795,563 | $ (45,305) | $ (11,528) | $ 11,728 | $ 1,713,783 |
| Net income | | | | 126,179 | | | | 126,179 |
| Other comprehensive income, net of tax | | | | | 47,775 | | | 47,775 |
| Cash dividends declared: | | | | | | | | |
| Common, $1.17 per share | | | | (60,488) | | | | (60,488) |
| Common stock activity under employee stock ownership plan | 266,127 | 266 | 2,246 | | | | | 2,512 |
| Stock-based compensation | | | 3,998 | | | | | 3,998 |
| Distribution of stock under deferred compensation arrangements | 32,431 | | 1,064 | | | 830 | (1,894) | 0 |
| Treasury stock issued to benefit plans, net | 103,672 | | 2,626 | | | 3,823 | 213 | 6,662 |
| Balance at September 30, 2019 | 51,660,054 | $ 51,843 | $ 921,682 | $ 861,254 | $ 2,470 | $ (6,875) | $ 10,047 | $ 1,840,421 |
| Balance at December 31, 2017 | 50,696,077 | $ 51,264 | $ 894,879 | $ 700,557 | $ (3,699) | $ (21,014) | $ 13,328 | $ 1,635,315 |
| Net income | | | | 127,818 | | | | 127,818 |
| Other comprehensive loss, net of tax | | | | | (58,235) | | | (58,235) |
| Cumulative effect of change in accounting principle - equity securities | | | | 208 | (208) | | | 0 |
| Cash dividends declared: | | | | | | | | |
| Common, $1.06 per share | | | | (54,180) | | | | (54,180) |
| Common stock activity under employee stock ownership plan | 283,412 | 283 | 5,511 | | | | | 5,794 |
| Stock-based compensation | | | 4,607 | | | | | 4,607 |
| Distribution of stock under deferred compensation arrangements | 35,233 | | | | | 1,898 | (1,898) | 0 |
| Treasury stock issued to benefit plans, net | 121,954 | | 2,693 | | | 4,313 | 220 | 7,226 |
| Balance at September 30, 2018 | 51,136,676 | $ 51,547 | $ 907,690 | $ 774,403 | $ (62,142) | $ (14,803) | $ 11,650 | $ 1,668,345 |

The accompanying notes are an integral part of the consolidated financial statements.

**COMMUNITY BANK SYSTEM, INC.**
**CONSOLIDATED STATEMENTS OF CASH FLOWS (Unaudited)**
**(In Thousands)**

| | Nine Months Ended September 30, | |
|---|---|---|
| | 2019 | 2018 |
| Operating activities: | | |
| Net income | $ 126,179 | $ 127,818 |
| Adjustments to reconcile net income to net cash provided by operating activities: | | |
| Depreciation | 11,781 | 11,854 |
| Amortization of intangible assets | 11,994 | 13,780 |
| Net accretion on securities, loans and borrowings | (4,545) | (7,141) |
| Stock-based compensation | 3,998 | 4,607 |
| Provision for loan losses | 5,573 | 8,342 |
| Amortization of mortgage servicing rights | 285 | 340 |
| Gain on sale of investment securities, net | (4,882) | 0 |
| Unrealized gain on equity securities | (28) | (722) |
| Loss on debt extinguishment | 0 | 318 |
| Income from bank-owned life insurance policies | (1,215) | (1,177) |
| Net gain on sale of loans and other assets | (2) | (207) |
| Change in other assets and other liabilities | (20,152) | 9,966 |
| Net cash provided by operating activities | 128,986 | 167,778 |
| Investing activities: | | |
| Proceeds from sales of available-for-sale investment securities | 590,179 | 0 |
| Proceeds from maturities, calls, and paydowns of available-for-sale investment securities | 153,785 | 102,549 |
| Proceeds from maturities and redemptions of equity and other investment securities | 3,258 | 8,292 |
| Purchases of available-for-sale investment securities | (86,073) | (47,495) |
| Purchases of equity and other securities | (144) | (31) |
| Net increase in loans | (100,020) | (51,170) |
| Cash paid for acquisitions, net of cash acquired of $90,381 and $16, respectively | (4,653) | (1,737) |
| Settlement of bank-owned life insurance policies | 1,597 | 0 |
| Purchases of premises and equipment, net | (5,025) | (8,903) |
| Real estate limited partnership investments | (1,342) | (1,197) |
| Net cash provided by investing activities | 551,562 | 308 |
| Financing activities: | | |
| Net increase in deposits | 277,833 | 19,401 |
| Net decrease in borrowings | (80,502) | (86,523) |
| Payments on subordinated debt held by unconsolidated subsidiary trusts | (22,681) | (25,207) |
| Issuance of common stock | 2,512 | 5,794 |
| Purchases of treasury stock | (213) | (220) |
| Sales of treasury stock | 6,662 | 7,226 |
| Increase in deferred compensation arrangements | 213 | 220 |
| Cash dividends paid | (59,014) | (52,006) |
| Withholding taxes paid on share-based compensation | (3,150) | (971) |
| Net cash provided by/(used in) financing activities | 121,660 | (132,286) |
| Change in cash and cash equivalents | 802,208 | 35,800 |
| Cash and cash equivalents at beginning of period | 211,834 | 221,038 |
| Cash and cash equivalents at end of period | $ 1,014,042 | $ 256,838 |
| | | |
| Supplemental disclosures of cash flow information: | | |
| Cash paid for interest | $ 18,455 | $ 12,870 |
| Cash paid for income taxes | 34,150 | 20,674 |
| Supplemental disclosures of noncash financing and investing activities: | | |
| Dividends declared and unpaid | 21,282 | 19,634 |
| Transfers from loans to other real estate | 1,833 | 2,426 |
| Acquisitions: | | |
| Fair value of assets acquired, excluding acquired cash and intangibles | 548,934 | 115 |
| Fair value of liabilities assumed | 589,611 | 31 |

The accompanying notes are an integral part of the consolidated financial statements.

**COMMUNITY BANK SYSTEM, INC.**
**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Unaudited)**
**SEPTEMBER 30, 2019**

## NOTE A: BASIS OF PRESENTATION

The interim financial data as of and for the three and nine months ended September 30, 2019 is unaudited; however, in the opinion of Community Bank System, Inc. (the "Company"), the interim data includes all adjustments, consisting only of normal recurring adjustments, necessary for a fair statement of the results for the interim periods in conformity with generally accepted accounting principles in the United States of America ("GAAP"). The results of operations for the interim periods are not necessarily indicative of the results that may be expected for the full year or any other interim period.

## NOTE B: ACQUISITIONS

*Subsequent Event/Pending Acquisition – Steuben Trust Corporation*
On October 21, 2019, the Company announced that it had entered into a definitive agreement to acquire Steuben Trust Corporation ("Steuben"), parent company of Steuben Trust Company, a New York State chartered bank headquartered in Hornell, New York, for approximately $106.8 million in Company stock and cash. The acquisition will add 15 branch locations, extend the Company's footprint into two new counties in Western New York State, and enhance the Company's presence in four Western New York State counties in which it currently operates. The acquisition is expected to close during the second quarter of 2020, pending both customary regulatory and Steuben shareholder approval. The Company expects to incur certain one-time, transaction-related costs in 2019 and 2020 in connection with the Steuben acquisition.

On September 18, 2019, the Company, through its subsidiary, Community Investment Services, Inc. ("CISI"), completed its acquisition of certain assets of a practice engaged in the financial services business headquartered in Syracuse, New York. The Company paid $0.5 million in cash to acquire a customer list, and recorded a $0.5 million customer list intangible asset in conjunction with the acquisition. The effects of the acquired assets have been included in the consolidated financial statements since that date.

On July 12, 2019, the Company completed its merger with Kinderhook Bank Corp. ("Kinderhook"), parent company of The National Union Bank of Kinderhook, headquartered in Kinderhook, New York, for $93.4 million in cash. The merger added 11 branch locations across a five county area in the Capital District of Upstate New York. The merger resulted in the acquisition of $642.9 million of assets, including $479.9 million of loans and $39.8 million of investment securities, as well as $568.1 million of deposits and $40.1 million in goodwill. The effects of the acquired assets and liabilities have been included in the consolidated financial statements since that date. Revenues, excluding interest income on acquired investments, of approximately $4.3 million and direct expenses, which may not include certain shared expenses, of approximately $1.8 million from Kinderhook were included in the consolidated income statement for the three and nine months ended September 30, 2019.

On January 2, 2019, the Company, through its subsidiary, CISI, completed its acquisition of certain assets of Wealth Resources Network, Inc. ("Wealth Resources"), a financial services business headquartered in Liverpool, New York. The Company paid $1.2 million in cash to acquire a customer list from Wealth Resources, and recorded a $1.2 million customer list intangible asset in conjunction with the acquisition. The effects of the acquired assets have been included in the consolidated financial statements since that date.

On April 2, 2018, the Company, through its subsidiary, Benefit Plans Administrative Services, Inc. ("BPAS"), acquired certain assets of HR Consultants (SA), LLC ("HR Consultants"), a provider of actuarial and benefit consulting services headquartered in Puerto Rico. The Company paid $0.3 million in cash to acquire the assets of HR Consultants and recorded intangible assets of $0.3 million in conjunction with the acquisition. The effects of the acquired assets have been included in the consolidated financial statements since that date.

On January 2, 2018, the Company, through its subsidiary, OneGroup NY, Inc. ("OneGroup"), completed its acquisition of certain assets of Penna & Associates Agency, Inc. ("Penna"), an insurance agency headquartered in Johnson City, New York. The Company paid $0.8 million in cash to acquire the assets of Penna, and recorded goodwill in the amount of $0.3 million and a customer list intangible asset of $0.3 million in conjunction with the acquisition. The effects of the acquired assets and liabilities have been included in the consolidated financial statements since that date.

On January 2, 2018, the Company, through its subsidiary, CISI, completed its acquisition of certain assets of Styles Bridges Associates ("Styles Bridges"), a financial services business headquartered in Canton, New York. The Company paid $0.7 million in cash to acquire a customer list from Styles Bridges, and recorded a $0.7 million customer list intangible asset in conjunction with the acquisition. The effects of the acquired assets have been included in the consolidated financial statements since that date.

The assets and liabilities assumed in the acquisitions were recorded at their estimated fair values based on management's best estimates using information available at the dates of the acquisitions, and were subject to adjustment based on updated information not available at the time of the acquisitions. The accrued income taxes associated with the Kinderhook acquisition were recorded on a provisional basis and could vary from the actual recorded balance once finalized.

The above referenced acquisitions generally expanded the Company’s geographical presence in New York and management expects that the Company will benefit from greater geographic diversity and the advantages of other synergistic business development opportunities.

The following table summarizes the estimated fair value of the assets acquired and liabilities assumed after considering the measurement period adjustments described above:

| | 2019 | | | 2018 |
|---|---|---|---|---|
| (000s omitted) | Kinderhook | Other (1) | Total | Other (2) |
| Consideration paid : | | | | |
| Cash | $ 93,384 | $ 1,650 | $ 95,034 | $ 1,753 |
| Total net consideration paid | $ 93,384 | $ 1,650 | $ 95,034 | $ 1,753 |
| Recognized amounts of identifiable assets acquired and liabilities assumed: | | | | |
| Cash and cash equivalents | 90,381 | 0 | 90,381 | 16 |
| Available-for-sale investment securities | 37,653 | 0 | 37,653 | 0 |
| Equity and other securities | 2,117 | 0 | 2,117 | 0 |
| Loans | 479,931 | 0 | 479,931 | 0 |
| Premises and equipment | 13,970 | 0 | 13,970 | 10 |
| Accrued interest and fees receivable | 1,119 | 0 | 1,119 | 0 |
| Other assets | 14,144 | 0 | 14,144 | 105 |
| Core deposit intangibles | 3,573 | 0 | 3,573 | 0 |
| Other intangibles | 0 | 1,650 | 1,650 | 1,343 |
| Deposits | (568,081) | 0 | (568,081) | 0 |
| Other liabilities | (3,217) | 0 | (3,217) | (31) |
| Subordinated notes payable | (13,831) | 0 | (13,831) | 0 |
| Other long-term debt | (2,420) | 0 | (2,420) | 0 |
| Subordinated debt held by unconsolidated subsidiary trusts | (2,062) | 0 | (2,062) | 0 |
| Total identifiable assets, net | 53,277 | 1,650 | 54,927 | 1,443 |
| Goodwill | $ 40,107 | $ 0 | $ 40,107 | $ 310 |

(1) Includes amounts related to both acquisitions completed by CISI in 2019.

(2) Includes amounts related to the Styles Bridges, Penna, and HR Consultants acquisitions.

Acquired loans that have evidence of deterioration in credit quality since origination and for which it is probable, at acquisition, that the Company will be unable to collect all contractually required payments were aggregated by comparable characteristics and recorded at fair value without a carryover of the related allowance for loan losses. Cash flows for each loan were determined using an estimate of credit losses and rate of prepayments. Projected monthly cash flows were then discounted to present value using a market-based discount rate. The excess of the undiscounted expected cash flows over the estimated fair value is referred to as the “accretable yield” and is recognized into interest income over the remaining lives of the acquired loans.

The following is a summary of the loans acquired from Kinderhook at the date of acquisition:

| (000s omitted) | Acquired Impaired Loans | Acquired Non-impaired Loans | Total Acquired Loans |
|---|---|---|---|
| Contractually required principal and interest at acquisition | $ 12,661 | $ 591,694 | $ 604,355 |
| Contractual cash flows not expected to be collected | (4,096) | (5,472) | (9,568) |
| Expected cash flows at acquisition | 8,565 | 586,222 | 594,787 |
| Interest component of expected cash flows | (512) | (114,344) | (114,856) |
| Fair value of acquired loans | $ 8,053 | $ 471,878 | $ 479,931 |

The fair value of checking, savings and money market deposit accounts acquired were assumed to approximate the carrying value as these accounts have no stated maturity and are payable on demand. Certificate of deposit accounts were valued at the present value of the certificates’ expected contractual payments discounted at market rates for similar certificates. The fair value of subordinated notes payable was estimated using discounted cash flows and interest rates being offered on similar securities. Subordinated notes payable assumed with the Kinderhook acquisition included $3.0 million of subordinated notes with a fixed interest rate of 6.0% maturing in February 2028 and $10.0 million of

subordinated notes with a fixed interest rate of 6.375% maturing in November 2025.

The core deposit intangibles and other intangibles related to both acquisitions completed by CISI in 2019, Kinderhook, Styles Bridges, Penna, and HR Consultants acquisitions are being amortized using an accelerated method over their estimated useful life of eight years. The goodwill, which is not amortized for book purposes, was assigned to the Banking segment for the Kinderhook acquisition and the All Other segment for the Penna acquisition. Goodwill arising from the Kinderhook acquisition is not deductible for tax purposes. Goodwill arising from the Penna acquisition is deductible for tax purposes.

Direct costs related to the acquisitions were expensed as incurred. Merger and acquisition integration-related expenses amount to $6.1 million and $7.8 million during the three and nine months ended September 30, 2019 and have been separately stated in the Consolidated Statements of Income. During the three and nine months ended September 30, 2018, the Company recognized merger and acquisition integration-related recoveries in the amount of $0.8 million due to an adjustment of contract termination expenses that have been separately stated in the Consolidated Statements of Income.

*Supplemental Pro Forma Financial Information*
The following unaudited condensed pro forma information assumes the Kinderhook acquisitions had been completed as of January 1, 2018 for the three and nine months ended September 30, 2018 and September 30, 2019. The pro forma information does not include amounts related to the two acquisitions completed by CISI in 2019 as the amounts were immaterial. The table below has been prepared for comparative purposes only and is not necessarily indicative of the actual results that would have been attained had the acquisitions occurred as of the beginning of the year presented, nor is it indicative of the Company's future results. Furthermore, the unaudited pro forma information does not reflect management's estimate of any revenue-enhancing opportunities nor anticipated cost savings that may have occurred as a result of the integration and consolidation of the acquisitions.

The pro forma information set forth below reflects the historical results of Kinderhook combined with the Company's consolidated statement of income with adjustments related to (a) certain purchase accounting fair value adjustments and (b) amortization of customer lists and core deposit intangibles. Acquisition-related expenses totaling $6.1 million and $7.8 million for the three and nine months ended September 30, 2019 were included in the pro forma information as if they were incurred in the first quarter of 2018.

| | Pro Forma (Unaudited) Three Months Ended | | Pro Forma (Unaudited) Nine Months Ended | |
|---|---|---|---|---|
| (000's omitted) | September 30, 2019 | September 30, 2018 | September 30, 2019 | September 30, 2018 |
| Total revenue, net of interest expense | $ 149,087 | $ 148,152 | $ 452,995 | $ 446,084 |
| Net income | 44,154 | 44,313 | 135,370 | 125,505 |

**NOTE C: ACCOUNTING POLICIES**

The accounting policies of the Company, as applied in the consolidated interim financial statements presented herein, are substantially the same as those followed on an annual basis as presented on pages 65 through 75 of the Annual Report on Form 10-K for the year ended December 31, 2018 filed with the Securities and Exchange Commission ("SEC") on March 1, 2019 except as noted below.

***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 Company's noninterest revenue 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 often received immediately or shortly after the Company satisfies its performance obligation and revenue is recognized. The Company does not typically enter into long-term revenue contracts with customers, and therefore, does not experience significant contract balances. As of September 30, 2019, $28.0 million of accounts receivable, including $8.3 million of unbilled fee revenue, and $1.9 million of unearned revenue was recorded in the consolidated statements of condition. As of December 31, 2018, $26.4 million of accounts receivable, including $7.8 million of unbilled fee revenue, and $2.2 million of unearned revenue was recorded in the consolidated statements of condition.

***Leases***
The Company occupies certain offices and uses certain equipment under non-cancelable operating lease agreements. The Company determines if an arrangement is a lease at inception. The right-of-use assets associated with operating leases are recorded in premises and equipment in the Company's consolidated statements of condition. The lease liabilities associated with operating leases are included in accrued interest and other liabilities in the Company's consolidated statements of condition.

Right-of-use assets represent the Company's right to use the underlying assets for the lease term and lease liabilities represent the Company's obligation to make lease payments arising from the associated leases. Operating lease right-of-use assets and liabilities are recognized at the commencement date of the lease based on the present value of lease payments over the lease term. The Company uses interest rates on advances from the Federal Home Loan Bank of New York available at the time of commencement to determine the present value of lease payments. The operating lease right-of-use assets include any lease payments made at the time of commencement and exclude lease incentives. The Company's lease terms may include options to extend or terminate the lease when it is reasonably certain that the option will be exercised. Lease expense is recognized on a straight-line basis over the lease term and is included in occupancy and equipment expense in the Company's consolidated statements of income.

The Company elected to account for lease and non-lease components separately, applies a portfolio approach to account for the lease right-of-use assets and liabilities for certain equipment leases and elected to exclude leases with a term of 12 months or less from the recognition and measurement policies described above.

***Derivative Financial Instruments and Hedging Activities***

The Company accounts for derivative financial instruments at fair value. If certain conditions are met, a derivative may be specifically designated as (1) a hedge of the exposure to changes in the fair value of a recognized asset or liability or an unrecognized firm commitment ("fair value hedge"), (2) a hedge of the exposure to variable cash flows of a forecasted transaction or the variability of cash flows to be received or paid related to a recognized asset or liability ("cash flow hedge"), or (3) an instrument with no hedging designation ("stand-alone derivative"). For a fair value hedge, the gain or loss on the derivative, as well as the offsetting loss or gain on the hedged item, are recognized in current earnings as fair values change. For a cash flow hedge, the gain or loss on the derivative is reported in other comprehensive income and is reclassified into earnings in the same periods during which the hedged transaction affects earnings. Changes in the fair value of derivatives that do not qualify for hedge accounting are reported currently in earnings, as noninterest revenues.

Net cash settlements on derivatives that qualify for hedge accounting are recorded in interest income or interest expense, based on the item being hedged. Net cash settlements on derivatives that do not qualify for hedge accounting are reported in noninterest revenues. Cash flows on hedges are classified in the consolidated statements of cash flow statement the same as the cash flows of the items being hedged.

The Company formally documents the relationship between derivatives and hedged items, as well as the risk-management objective and strategy for undertaking hedge transactions at the inception of the hedging relationship. This documentation includes linking the fair value or cash flow hedges to specific assets and liabilities on the statements of condition or to specific commitments or forecasted transactions.

When hedge accounting is discontinued, subsequent changes in fair value of the derivative are recorded in noninterest revenues. When a fair value hedge is discontinued, the hedged asset or liability is no longer adjusted for changes in fair value and the existing basis adjustment is amortized or accreted over the remaining life of the asset or liability. When a cash flow hedge is discontinued, but the hedged cash flows or forecasted transactions are still expected to occur, gains or losses that were accumulated in other comprehensive income are amortized into earnings over the same periods which the hedged transactions will affect earnings.

***Recently Adopted Accounting Pronouncements***

In February 2016, the FASB issued ASU 2016-02, *Leases (Topic 842)*. This new guidance supersedes the lease requirements in *Topic 840, Leases* and is based on the principle that a lessee should recognize in the statement of financial position a liability to make lease payments (the lease liability) and a right-of-use asset representing its right to use the underlying asset for the lease term. The accounting applied by a lessor is largely unchanged from that applied under the previous guidance. In addition, the guidance requires an entity to separate the lease components from the nonlease components in a contract. The ASU requires disclosures about the amount, timing, and judgments related to a reporting entity's accounting for leases and related cash flows. The standard is required to be applied to all leases in existence as of the date of adoption using a modified retrospective transition approach, with certain practical expedients available. The Company adopted this guidance on January 1, 2019 using the cumulative-effect adjustment method. The cumulative-effect adjustment was not material. The Company elected several practical expedients available under the standard. The Company elected to not reassess whether any expired or existing contracts are or contain leases, to not reassess the classification (operating or capital) of any expired or existing contracts, to not reassess initial direct costs for existing leases, and to use hindsight in determining the lease term. The Company has implemented processes and a lease accounting system to ensure adequate internal controls were in place to assess our contracts and enable proper accounting and reporting of financial information upon adoption. The increase in total assets and total liabilities was $34.2 million. The impact on the Company's results of operations and cash flows was not material.

In August 2017, the FASB issued ASU No. 2017-12, *Derivatives and Hedging (Topic 815): Targeted Improvements to Accounting for Hedging Activities.* This new guidance amends current guidance to better align hedge accounting with risk management activities and reduce the complexity involved in applying hedge accounting. Under this new guidance, the concept of hedge ineffectiveness will be eliminated. Ineffective income generated by cash flow and net investment hedges will be recognized in the same financial reporting period and income statement line item as effective income, so as to reflect the full cost of hedging at one time and in one place. Ineffective income generated by fair value hedges will continue to be reflected in current period earnings; however, it will be recognized in the same income statement line item as effective income. The guidance will also allow any contractually specified variable rate to be designated as the hedged risk in a cash flow hedge. With respect to fair value hedges of interest rate risk, the guidance will allow changes in the fair value of the hedged item to be calculated solely using changes in the benchmark interest rate component of the instrument's total contractual coupon cash flows. The Company adopted this guidance on January 1, 2019 on a modified retrospective basis. The adoption of this ASU did not have a material impact on the Company's consolidated financial statements.

***New Accounting Pronouncements***

In June 2016, the FASB issued ASU No. 2016-13, *Financial Instruments – Credit Losses (Topic 326)*. This new guidance significantly changes how entities will measure credit losses for most financial assets and certain other instruments that are not measured at fair value through net income. This ASU will replace the "incurred loss" model under existing guidance with an "expected loss" model, better known as CECL, for instruments measured at amortized cost, and require entities to record allowances for available-for-sale debt securities rather than reduce the carrying amount, as they do today under the other-than-temporary impairment model. CECL simplifies the accounting model for purchased credit-impaired debt securities and loans and requires adoption through a cumulative-effect adjustment to retained earnings as of the beginning of the first reporting period in which the guidance is adopted. CECL is effective for fiscal years beginning after December 15, 2019, including interim periods within those fiscal years.

The Company is currently evaluating the impact CECL will have on the Company's consolidated financial statements, and expects a change in the allowance for loan losses resulting from the change to expected losses for the estimated life of the financial asset. Management has developed its CECL model for the Company's loan portfolio, which utilizes its historical data through September 30, 2019, as well as current and expected economic conditions and forecasts. The Company has completed the evaluation of its data requirements, determined its loan segments, determined the model construct for each segment, developed its qualitative framework and produced an estimated Allowance for Credit Loss amount based on the September 30, 2019 data inputs, assumptions and mathematical calculations. The Company is in the process of evaluating the model's sensitivity to various model inputs, as well as identifying the key controls around model development, quarterly model operations and the production of quarterly and annual financial statement disclosures.

Based on the preliminary September 30, 2019 model results, the Company believes it will establish an Allowance for Credit Losses at the time of adoption of between $52 million and $60 million. This compares to an allowance for loan losses of $49.4 million at September 30, 2019 based on the current incurred loss model and represents approximately a 5% to 21% increase in the Company's allowance. These results should be considered preliminary and may change due to factors including, but not limited to, changes in estimated historical losses, changes in the Company's asset quality trends, changes in current economic conditions and changes in the Company's economic forecast.

Upon adoption, the Company does not expect to record any material allowance for credit losses on its available-for-sale debt securities or on its other instruments carried at amortized cost, other than its held-for-investment loan portfolio. The Company's regulators will permit financial institutions to "phase-in" the impact of CECL on its regulatory capital ratios over 3 years with transitional relief of incremental capital requirements. The Company does not expect to utilize the phased-in approach and instead anticipates it will record the entire cumulative-effect adjustment against its regulatory capital at the time of adoption.

In January 2017, the FASB issued ASU No. 2017-04, *Intangibles-Goodwill and Other (Topic 350)*. The amendments simplify how an entity is required to test goodwill for impairment by eliminating the requirement to measure a goodwill impairment loss by comparing the implied fair value of a reporting unit's goodwill with the carrying amount of that goodwill. Instead, an entity will perform its goodwill impairment test by comparing the fair value of a reporting unit with its carrying amount, and recognize an impairment charge for the amount by which the carrying amount of the reporting unit exceeds its fair value. Impairment loss recognized under this new guidance will be limited to the goodwill allocated to the reporting unit. This ASU is effective prospectively for the Company for annual or interim goodwill impairment tests in fiscal years beginning after December 15, 2019. Early adoption was permitted for interim or annual goodwill impairment tests performed on testing dates after January 1, 2017. This ASU is not expected to have a material impact on the Company's consolidated financial statements.

**NOTE D: INVESTMENT SECURITIES**

The amortized cost and estimated fair value of investment securities as of September 30, 2019 and December 31, 2018 are as follows:

| (000's omitted) | September 30, 2019 Amortized Cost | Gross Unrealized Gains | Gross Unrealized Losses | Fair Value | December 31, 2018 Amortized Cost | Gross Unrealized Gains | Gross Unrealized Losses | Fair Value |
|---|---|---|---|---|---|---|---|---|
| *Available-for-Sale Portfolio:* | | | | | | | | |
| U.S. Treasury and agency securities | $ 1,482,739 | $ 24,122 | $ 214 | $ 1,506,647 | $ 2,036,474 | $ 2,190 | $ 14,911 | $ 2,023,753 |
| Obligations of state and political subdivisions | 442,942 | 15,159 | 11 | 458,090 | 453,640 | 6,563 | 1,049 | 459,154 |
| Government agency mortgage-backed securities | 406,329 | 6,330 | 843 | 411,816 | 390,234 | 1,526 | 9,283 | 382,477 |
| Corporate debt securities | 2,542 | 0 | 2 | 2,540 | 2,588 | 0 | 42 | 2,546 |
| Government agency collateralized mortgage obligations | 57,452 | 592 | 35 | 58,009 | 69,342 | 60 | 1,283 | 68,119 |
| Total available-for-sale portfolio | $ 2,392,004 | $ 46,203 | $ 1,105 | $ 2,437,102 | $ 2,952,278 | $ 10,339 | $ 26,568 | $ 2,936,049 |
| | | | | | | | | |
| *Equity and other Securities:* | | | | | | | | |
| Equity securities, at fair value | $ 251 | $ 210 | $ 0 | $ 461 | $ 251 | $ 200 | $ 19 | $ 432 |
| Federal Home Loan Bank common stock | 6,912 | 0 | 0 | 6,912 | 8,768 | 0 | 0 | 8,768 |
| Federal Reserve Bank common stock | 31,992 | 0 | 0 | 31,992 | 30,690 | 0 | 0 | 30,690 |
| Other equity securities, at adjusted cost | 4,525 | 750 | 0 | 5,275 | 4,969 | 750 | 0 | 5,719 |
| Total equity and other securities | $ 43,680 | $ 960 | $ 0 | $ 44,640 | $ 44,678 | $ 950 | $ 19 | $ 45,609 |

A summary of investment securities that have been in a continuous unrealized loss position is as follows:

As of September 30, 2019

| (000's omitted) | Less than 12 Months # | Fair Value | Gross Unrealized Losses | 12 Months or Longer # | Fair Value | Gross Unrealized Losses | Total # | Fair Value | Gross Unrealized Losses |
|---|---|---|---|---|---|---|---|---|---|
| *Available-for-Sale Portfolio:* | | | | | | | | | |
| U.S. Treasury and agency securities | 6 | $ 77,332 | $ 58 | 12 | $107,840 | $ 156 | 18 | $185,172 | $ 214 |
| Obligations of state and political subdivisions | 73 | 7,125 | 11 | 0 | 0 | 0 | 73 | 7,125 | 11 |
| Government agency mortgage-backed securities | 24 | 34,660 | 95 | 55 | 58,473 | 748 | 79 | 93,133 | 843 |
| Corporate debt securities | 0 | 0 | 0 | 1 | 2,540 | 2 | 1 | 2,540 | 2 |
| Government agency collateralized mortgage obligations | 5 | 6,662 | 9 | 7 | 5,357 | 26 | 12 | 12,019 | 35 |
| Total available-for-sale investment portfolio | 108 | $125,779 | $ 173 | 75 | $174,210 | $ 932 | 183 | $299,989 | $ 1,105 |

As of December 31, 2018

| (000's omitted) | Less than 12 Months # | Fair Value | Gross Unrealized Losses | 12 Months or Longer # | Fair Value | Gross Unrealized Losses | Total # | Fair Value | Gross Unrealized Losses |
|---|---|---|---|---|---|---|---|---|---|
| *Available-for-Sale Portfolio:* | | | | | | | | | |
| U.S. Treasury and agency securities | 7 | $473,082 | $ 682 | 64 | $1,213,276 | $ 14,229 | 71 | $1,686,358 | $ 14,911 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Obligations of state and political subdivisions | 118 | 55,671 | 216 | 97 | 51,753 | 833 | 215 | 107,424 | 1,049 |
| Government agency mortgage-backed securities | 43 | 47,708 | 258 | 181 | 253,931 | 9,025 | 224 | 301,639 | 9,283 |
| Corporate debt securities | 0 | 0 | 0 | 1 | 2,546 | 42 | 1 | 2,546 | 42 |
| Government agency collateralized mortgage obligations | 1 | 66 | 0 | 41 | 63,112 | 1,283 | 42 | 63,178 | 1,283 |
| Total available-for-sale investment portfolio | 169 | $576,527 | $ 1,156 | 384 | $1,584,618 | $ 25,412 | 553 | $2,161,145 | $ 26,568 |
| | | | | | | | | | |
| *Equity and other Securities:* | | | | | | | | | |
| Equity securities, at fair value | 1 | $ 82 | $ 19 | 0 | $ 0 | $ 0 | 1 | $ 82 | $ 19 |
| Total equity and other securities | 1 | $ 82 | $ 19 | 0 | $ 0 | $ 0 | 1 | $ 82 | $ 19 |

The unrealized losses reported pertaining to securities issued by the U.S. government and its sponsored entities, include treasuries, agencies, and mortgage-backed securities issued by Ginnie Mae, Fannie Mae, and Freddie Mac, which are currently rated AAA by Moody's Investor Services, AA+ by Standard & Poor's and are guaranteed by the U.S. government. The majority of the obligations of state and political subdivisions and corporations carry a credit rating of A or better. Additionally, a majority of the obligations of state and political subdivisions carry a secondary level of credit enhancement. The Company does not intend to sell these securities, nor is it more likely than not that the Company will be required to sell these securities prior to recovery of the amortized cost. The unrealized losses in the portfolios are primarily attributable to changes in interest rates. As such, management does not believe any individual unrealized loss as of September 30, 2019 represents other-than-temporary impairment.

The amortized cost and estimated fair value of debt securities at September 30, 2019, by contractual maturity, are shown below. Expected maturities will differ from contractual maturities because borrowers may have the right to call or prepay obligations with or without call or prepayment penalties. Securities not due at a single maturity date are shown separately.

| | Available-for-Sale | |
|---|---|---|
| (000's omitted) | Amortized Cost | Fair Value |
| Due in one year or less | $ 71,512 | $ 71,510 |
| Due after one through five years | 1,512,018 | 1,538,064 |
| Due after five years through ten years | 54,176 | 58,251 |
| Due after ten years | 290,517 | 299,452 |
| Subtotal | 1,928,223 | 1,967,277 |
| Government agency mortgage-backed securities | 406,329 | 411,816 |
| Government agency collateralized mortgage obligations | 57,452 | 58,009 |
| Total | $ 2,392,004 | $ 2,437,102 |

As of September 30, 2019, $245.6 million of U.S. Treasury securities were pledged as collateral for securities sold under agreement to repurchase. All securities sold under agreement to repurchase as of September 30, 2019 have an overnight and continuous maturity.

During the nine-month period ending September 30, 2019, the Company sold $590.2 million of U.S. Treasury and agency securities, recognizing $5.0 million of gross realized gains and $0.1 million of gross realized losses. The proceeds from these sales were primarily held in interest-earning cash and cash equivalents at higher net yields as of September 30, 2019.

**NOTE E: LOANS**

The segments of the Company's loan portfolio are disaggregated into the following classes that allow management to monitor risk and performance:

- Consumer mortgages consist primarily of fixed rate residential instruments, typically 10 – 30 years in contractual term, secured by first liens on real property.
- Business lending is comprised of general purpose commercial and industrial loans including, but not limited to, municipal lending, agricultural-related and dealer floor plans, as well as mortgages on commercial properties.
- Consumer indirect consists primarily of installment loans originated through selected dealerships and are secured by automobiles, marine and other recreational vehicles.
- Consumer direct consists of all other loans to consumers such as personal installment loans and lines of credit.
- Home equity products are consumer purpose installment loans or lines of credit most often secured by a first or second lien position on residential real estate with terms up to 30 years.

The balances of these classes are summarized as follows:

| (000's omitted) | September 30, 2019 | December 31, 2018 |
|---|---|---|
| Business lending | $ 2,779,612 | $ 2,396,977 |
| Consumer mortgage | 2,405,191 | 2,235,408 |
| Consumer indirect | 1,091,980 | 1,083,207 |
| Consumer direct | 187,379 | 178,820 |
| Home equity | 389,029 | 386,709 |
| Gross loans, including deferred origination costs | 6,853,191 | 6,281,121 |
| Allowance for loan losses | (49,423) | (49,284) |
| Loans, net of allowance for loan losses | $ 6,803,768 | $ 6,231,837 |

The outstanding balance related to credit impaired acquired loans was $16.7 million and $7.4 million at September 30, 2019 and December 31, 2018, respectively. The changes in the accretable discount related to the credit impaired acquired loans are as follows:

| (000's omitted) | |
|---|---|
| Balance at December 31, 2018 | $ 437 |
| Accretion recognized, year-to-date | (302) |
| Net reclassification from non-accretable to accretable | 96 |
| Kinderhook acquisition | 512 |
| Balance at September 30, 2019 | $ 743 |

Credit Quality
Management monitors the credit quality of its loan portfolio on an ongoing basis. Measurement of delinquency and past due status are based on the contractual terms of each loan. Past due loans are reviewed on a monthly basis to identify loans for non-accrual status. The following is an aged analysis of the Company's past due loans, by class as of September 30, 2019:

**Legacy Loans** (excludes loans acquired after January 1, 2009)

| (000's omitted) | Past Due 30 – 89 Days | 90+ Days Past Due and Still Accruing | Nonaccrual | Total Past Due | Current | Total Loans |
|---|---|---|---|---|---|---|
| Business lending | $ 2,697 | $ 189 | $ 4,590 | $ 7,476 | $ 1,778,596 | $ 1,786,072 |
| Consumer mortgage | 11,038 | 2,976 | 10,650 | 24,664 | 1,921,265 | 1,945,929 |
| Consumer indirect | 10,307 | 177 | 0 | 10,484 | 1,074,849 | 1,085,333 |
| Consumer direct | 1,046 | 38 | 0 | 1,084 | 177,242 | 178,326 |
| Home equity | 1,496 | 354 | 1,404 | 3,254 | 308,375 | 311,629 |
| Total | $ 26,584 | $ 3,734 | $ 16,644 | $ 46,962 | $ 5,260,327 | $ 5,307,289 |

**Acquired Loans** (includes loans acquired after January 1, 2009)

| (000's omitted) | Past Due 30 – 89 Days | 90+ Days Past Due and Still Accruing | Nonaccrual | Total Past Due | Acquired Impaired[(1)] | Current | Total Loans |
|---|---|---|---|---|---|---|---|
| Business lending | $ 747 | $ 997 | $ 3,957 | $ 5,701 | $ 11,508 | $ 976,331 | $ 993,540 |
| Consumer mortgage | 1,573 | 171 | 2,409 | 4,153 | 0 | 455,109 | 459,262 |
| Consumer indirect | 33 | 32 | 0 | 65 | 0 | 6,582 | 6,647 |
| Consumer direct | 86 | 5 | 54 | 145 | 0 | 8,908 | 9,053 |
| Home equity | 279 | 125 | 546 | 950 | 0 | 76,450 | 77,400 |
| Total | $ 2,718 | $ 1,330 | $ 6,966 | $ 11,014 | $ 11,508 | $ 1,523,380 | $ 1,545,902 |

(1) Acquired impaired loans were not classified as nonperforming assets as the loans are considered to be performing under ASC 310-30. As a result interest income, through the accretion of the difference between the carrying amount of the loans and the expected cashflows, is being recognized on all acquired impaired loans.

The following is an aged analysis of the Company's past due loans by class as of December 31, 2018:

**Legacy Loans** (excludes loans acquired after January 1, 2009)

| (000's omitted) | Past Due 30 – 89 Days | 90+ Days Past Due and Still Accruing | Nonaccrual | Total Past Due | Current | Total Loans |
|---|---|---|---|---|---|---|
| Business lending | $ 5,261 | $ 179 | $ 4,872 | $ 10,312 | $ 1,608,515 | $ 1,618,827 |
| Consumer mortgage | 12,468 | 1,393 | 9,872 | 23,733 | 1,824,717 | 1,848,450 |
| Consumer indirect | 14,609 | 258 | 0 | 14,867 | 1,057,525 | 1,072,392 |
| Consumer direct | 1,778 | 48 | 0 | 1,826 | 173,948 | 175,774 |
| Home equity | 983 | 228 | 1,438 | 2,649 | 309,892 | 312,541 |
| Total | $ 35,099 | $ 2,106 | $ 16,182 | $ 53,387 | $ 4,974,597 | $ 5,027,984 |

**Acquired Loans** (includes loans acquired after January 1, 2009)

| (000's omitted) | Past Due 30 – 89 Days | 90+ Days Past Due and Still Accruing | Nonaccrual | Total Past Due | Acquired Impaired(1) | Current | Total Loans |
|---|---|---|---|---|---|---|---|
| Business lending | $ 974 | $ 0 | $ 3,498 | $ 4,472 | $ 5,446 | $ 768,232 | $ 778,150 |
| Consumer mortgage | 841 | 232 | 2,390 | 3,463 | 0 | 383,495 | 386,958 |
| Consumer indirect | 78 | 34 | 0 | 112 | 0 | 10,703 | 10,815 |
| Consumer direct | 115 | 4 | 0 | 119 | 0 | 2,927 | 3,046 |
| Home equity | 613 | 79 | 474 | 1,166 | 0 | 73,002 | 74,168 |
| Total | $ 2,621 | $ 349 | $ 6,362 | $ 9,332 | $ 5,446 | $ 1,238,359 | $ 1,253,137 |

(1) Acquired impaired loans were not classified as nonperforming assets as the loans are considered to be performing under ASC 310-30. As a result interest income, through the accretion of the difference between the carrying amount of the loans and the expected cashflows, is being recognized on all acquired impaired loans.

The Company uses several credit quality indicators to assess credit risk in an ongoing manner. The Company's primary credit quality indicator for its business lending portfolio is an internal credit risk rating system that categorizes loans as "pass", "special mention", "classified", or "doubtful". Credit risk ratings are applied individually to those classes of loans that have significant or unique credit characteristics that benefit from a case-by-case evaluation. In general, the following are the definitions of the Company's credit quality indicators:

| | |
|---|---|
| Pass | The condition of the borrower and the performance of the loans are satisfactory or better. |
| Special Mention | The condition of the borrower has deteriorated although the loan performs as agreed. |
| Classified | The condition of the borrower has significantly deteriorated and the performance of the loan could further deteriorate, if deficiencies are not corrected. |
| Doubtful | The condition of the borrower has deteriorated to the point that collection of the balance is improbable based on current facts and conditions. |

The following table shows the amount of business lending loans by credit quality category:

| | September 30, 2019 | | | December 31, 2018 | | |
|---|---|---|---|---|---|---|
| (000's omitted) | Legacy | Acquired | Total | Legacy | Acquired | Total |
| Pass | $ 1,609,382 | $ 886,363 | $ 2,495,745 | $ 1,439,337 | $ 702,493 | $ 2,141,830 |
| Special mention | 91,159 | 61,289 | 152,448 | 105,065 | 40,107 | 145,172 |
| Classified | 85,531 | 34,380 | 119,911 | 74,425 | 28,525 | 102,950 |
| Doubtful | 0 | 0 | 0 | 0 | 1,579 | 1,579 |
| Acquired impaired | 0 | 11,508 | 11,508 | 0 | 5,446 | 5,446 |
| Total | $ 1,786,072 | $ 993,540 | $ 2,779,612 | $ 1,618,827 | $ 778,150 | $ 2,396,977 |

All other loans are underwritten and structured using standardized criteria and characteristics, primarily payment performance, and are normally risk rated and monitored collectively on a monthly basis. These are typically loans to individuals in the consumer categories and are delineated as either performing or nonperforming. Performing loans include loans classified as current as well as those classified as 30 - 89 days past due. Nonperforming loans include 90+ days past due and still accruing and nonaccrual loans. The following table details the balances in all other loan categories at September 30, 2019:

**Legacy Loans** (excludes loans acquired after January 1, 2009)

| (000's omitted) | Consumer Mortgage | Consumer Indirect | Consumer Direct | Home Equity | Total |
|---|---|---|---|---|---|
| Performing | $ 1,932,303 | $ 1,085,156 | $ 178,288 | $ 309,871 | $ 3,505,618 |
| Nonperforming | 13,626 | 177 | 38 | 1,758 | 15,599 |
| Total | $ 1,945,929 | $ 1,085,333 | $ 178,326 | $ 311,629 | $ 3,521,217 |

**Acquired Loans** (includes loans acquired after January 1, 2009)

| (000's omitted) | Consumer Mortgage | Consumer Indirect | Consumer Direct | Home Equity | Total |
|---|---|---|---|---|---|
| Performing | $ 456,682 | $ 6,615 | $ 8,994 | $ 76,729 | $ 549,020 |
| Nonperforming | 2,580 | 32 | 59 | 671 | 3,342 |
| Total | $ 459,262 | $ 6,647 | $ 9,053 | $ 77,400 | $ 552,362 |

The following table details the balances in all other loan categories at December 31, 2018:

**Legacy Loans** (excludes loans acquired after January 1, 2009)

| (000's omitted) | Consumer Mortgage | Consumer Indirect | Consumer Direct | Home Equity | Total |
|---|---|---|---|---|---|
| Performing | $ 1,837,185 | $ 1,072,134 | $ 175,726 | $ 310,875 | $ 3,395,920 |
| Nonperforming | 11,265 | 258 | 48 | 1,666 | 13,237 |
| Total | $ 1,848,450 | $ 1,072,392 | $ 175,774 | $ 312,541 | $ 3,409,157 |

**Acquired Loans** (includes loans acquired after January 1, 2009)

| (000's omitted) | Consumer Mortgage | Consumer Indirect | Consumer Direct | Home Equity | Total |
|---|---|---|---|---|---|
| Performing | $ 384,336 | $ 10,781 | $ 3,042 | $ 73,615 | $ 471,774 |
| Nonperforming | 2,622 | 34 | 4 | 553 | 3,213 |
| Total | $ 386,958 | $ 10,815 | $ 3,046 | $ 74,168 | $ 474,987 |

All loan classes are collectively evaluated for impairment except business lending. A summary of individually evaluated impaired loans as of September 30, 2019 and December 31, 2018 follows:

| (000's omitted) | September 30, 2019 | December 31, 2018 |
|---|---|---|
| Loans with allowance allocation | $ 0 | $ 3,956 |
| Loans without allowance allocation | 5,172 | 2,230 |
| Carrying balance | 5,172 | 6,186 |
| Contractual balance | 11,896 | 12,078 |
| Specifically allocated allowance | 0 | 956 |

In the course of working with borrowers, the Company may choose to restructure the contractual terms of certain loans. In this scenario, the Company attempts to work-out an alternative payment schedule with the borrower in order to optimize collectability of the loan. Any loans that are modified are reviewed by the Company to identify if a troubled debt restructuring ("TDR") has occurred, which is when, for economic or legal reasons related to a borrower's financial difficulties, the Company grants a concession to the borrower that it would not otherwise consider. Terms may be modified to fit the ability of the borrower to repay in line with its current financial standing and the restructuring of the loan may include the transfer of assets from the borrower to satisfy the debt, a modification of loan terms, or a combination of the two.

In accordance with the clarified guidance issued by the Office of the Comptroller of the Currency ("OCC"), consumer mortgage loans that have been discharged in Chapter 7 bankruptcy but not reaffirmed by the borrower, are classified as TDRs, irrespective of payment history or delinquency status, even if the repayment terms for the loan have not been otherwise modified. The Company's lien position against the underlying collateral remains unchanged. Pursuant to that guidance, the Company records a charge-off equal to any portion of the carrying value that exceeds the net realizable value of the collateral. The amount of loss incurred in the three and nine months ended September 30, 2019 and 2018 was immaterial.

TDRs that are less than $0.5 million are collectively included in the general loan loss allocation and the qualitative review. TDRs that are commercial loans and greater than $0.5 million are individually evaluated for impairment, and if necessary, a specific allocation of the allowance for loan losses is provided. As a result, the determination of the amount of allowance for loan losses related to TDRs is the same as detailed in the critical accounting policies.

Information regarding TDRs as of September 30, 2019 and December 31, 2018 is as follows:

| | September 30, 2019 | | | | | | December 31, 2018 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (000's omitted) | Nonaccrual | | Accruing | | Total | | Nonaccrual | | Accruing | | Total | |
| | # | Amount | # | Amount | # | Amount | # | Amount | # | Amount | # | Amount |
| Business lending | 5 | $ 662 | 3 | $ 205 | 8 | $ 867 | 4 | $ 162 | 2 | $ 165 | 6 | $ 327 |
| Consumer mortgage | 57 | 2,527 | 49 | 1,945 | 106 | 4,472 | 46 | 1,986 | 46 | 1,769 | 92 | 3,755 |
| Consumer indirect | 0 | 0 | 77 | 854 | 77 | 854 | 0 | 0 | 77 | 857 | 77 | 857 |
| Consumer direct | 0 | 0 | 22 | 91 | 22 | 91 | 0 | 0 | 22 | 71 | 22 | 71 |
| Home equity | 13 | 230 | 11 | 310 | 24 | 540 | 12 | 240 | 9 | 275 | 21 | 515 |
| Total | 75 | $ 3,419 | 162 | $ 3,405 | 237 | $ 6,824 | 62 | $ 2,388 | 156 | $ 3,137 | 218 | $ 5,525 |

The following table presents information related to loans modified in a TDR during the three months and nine months ended September 30, 2019 and 2018. Of the loans noted in the table below, all consumer mortgage loans for the three months and nine months ended September 30, 2019 and 2018 were modified due to a Chapter 7 bankruptcy as described previously. The financial effects of these restructurings were immaterial.

| | Three Months Ended September 30, 2019 | | Three Months Ended September 30, 2018 | |
|---|---|---|---|---|
| (000's omitted) | Number of loans modified | Outstanding Balance | Number of loans modified | Outstanding Balance |
| Business lending | 1 | $ 415 | 0 | $ 0 |
| Consumer mortgage | 8 | 464 | 4 | 195 |
| Consumer indirect | 10 | 116 | 14 | 117 |
| Consumer direct | 2 | 25 | 2 | 10 |
| Home equity | 0 | 0 | 1 | 0 |
| Total | 21 | $ 1,020 | 21 | $ 322 |

| | Nine Months Ended September 30, 2019 | | Nine Months Ended September 30, 2018 | |
|---|---|---|---|---|
| (000's omitted) | Number of loans modified | Outstanding Balance | Number of loans modified | Outstanding Balance |
| Business lending | 3 | $ 660 | 1 | $ 93 |
| Consumer mortgage | 19 | 1,271 | 7 | 407 |
| Consumer indirect | 22 | 206 | 24 | 176 |
| Consumer direct | 5 | 35 | 5 | 21 |
| Home equity | 4 | 72 | 2 | 85 |
| Total | 53 | $ 2,244 | 39 | $ 782 |

Allowance for Loan Losses

The allowance for loan losses is general in nature and is available to absorb losses from any loan type despite the analysis below. The following presents by class the activity in the allowance for loan losses:

| | Three Months Ended September 30, 2019 | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| (000's omitted) | Business Lending | Consumer Mortgage | Consumer Indirect | Consumer Direct | Home Equity | Unallocated | Acquired Impaired | Total |
| Beginning balance | $ 17,769 | $ 10,763 | $ 14,345 | $ 3,184 | $ 2,103 | $ 991 | $ 155 | $ 49,310 |
| Charge-offs | (305) | (200) | (2,224) | (456) | (45) | 0 | 0 | (3,230) |
| Recoveries | 290 | 8 | 1,095 | 167 | 32 | 0 | 0 | 1,592 |
| Provision | 301 | (94) | 1,221 | 383 | (8) | (53) | 1 | 1,751 |
| Ending balance | $ 18,055 | $ 10,477 | $ 14,437 | $ 3,278 | $ 2,082 | $ 938 | $ 156 | $ 49,423 |

| | Three Months Ended September 30, 2018 | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| (000's omitted) | Business Lending | Consumer Mortgage | Consumer Indirect | Consumer Direct | Home Equity | Unallocated | Acquired Impaired | Total |
| Beginning balance | $ 18,439 | $ 10,473 | $ 14,424 | $ 3,164 | $ 2,015 | $ 1,070 | $ 33 | $ 49,618 |
| Charge-offs | (73) | (144) | (2,364) | (465) | (221) | 0 | 0 | (3,267) |
| Recoveries | 93 | 46 | 1,190 | 223 | 15 | 0 | 0 | 1,567 |
| Provision | 321 | (205) | 1,719 | 299 | 225 | (159) | 15 | 2,215 |
| Ending balance | $ 18,780 | $ 10,170 | $ 14,969 | $ 3,221 | $ 2,034 | $ 911 | $ 48 | $ 50,133 |

| | Nine Months Ended September 30, 2019 | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| (000's omitted) | Business Lending | Consumer Mortgage | Consumer Indirect | Consumer Direct | Home Equity | Unallocated | Acquired Impaired | Total |
| Beginning balance | $ 18,522 | $ 10,124 | $ 14,366 | $ 3,095 | $ 2,144 | $ 1,000 | $ 33 | $ 49,284 |
| Charge-offs | (1,774) | (1,040) | (5,529) | (1,436) | (223) | 0 | 0 | (10,002) |
| Recoveries | 593 | 44 | 3,296 | 567 | 68 | 0 | 0 | 4,568 |
| Provision | 714 | 1,349 | 2,304 | 1,052 | 93 | (62) | 123 | 5,573 |
| Ending balance | $ 18,055 | $ 10,477 | $ 14,437 | $ 3,278 | $ 2,082 | $ 938 | $ 156 | $ 49,423 |

| (000's omitted) | Nine Months Ended September 30, 2018 Business Lending | Consumer Mortgage | Consumer Indirect | Consumer Direct | Home Equity | Unallocated | Acquired Impaired | Total |
|---|---|---|---|---|---|---|---|---|
| Beginning balance | $ 17,257 | $ 10,465 | $ 13,468 | $ 3,039 | $ 2,107 | $ 1,100 | $ 147 | $ 47,583 |
| Charge-offs | (2,000) | (588) | (6,031) | (1,324) | (325) | 0 | (368) | (10,636) |
| Recoveries | 404 | 109 | 3,688 | 612 | 31 | 0 | 0 | 4,844 |
| Provision | 3,119 | 184 | 3,844 | 894 | 221 | (189) | 269 | 8,342 |
| Ending balance | $ 18,780 | $ 10,170 | $ 14,969 | $ 3,221 | $ 2,034 | $ 911 | $ 48 | $ 50,133 |

**NOTE F: GOODWILL AND IDENTIFIABLE INTANGIBLE ASSETS**

The gross carrying amount and accumulated amortization for each type of identifiable intangible asset are as follows:

| | September 30, 2019 | | | December 31, 2018 | | |
|---|---|---|---|---|---|---|
| (000's omitted) | Gross Carrying Amount | Accumulated Amortization | Net Carrying Amount | Gross Carrying Amount | Accumulated Amortization | Net Carrying Amount |
| *Amortizing intangible assets:* | | | | | | |
| Core deposit intangibles | $ 66,475 | $ (48,603) | $ 17,872 | $ 62,902 | $ (44,306) | $ 18,596 |
| Other intangibles | 89,266 | (40,063) | 49,203 | 87,616 | (32,366) | 55,250 |
| Total amortizing intangibles | $ 155,741 | $ (88,666) | $ 67,075 | $ 150,518 | $ (76,672) | $ 73,846 |

The estimated aggregate amortization expense for each of the five succeeding fiscal years ended December 31 is as follows:

| | (000's omitted) |
|---|---|
| Oct - Dec 2019 | $ 3,962 |
| 2020 | 13,801 |
| 2021 | 11,786 |
| 2022 | 10,105 |
| 2023 | 8,457 |
| Thereafter | 18,964 |
| Total | $67,075 |

Shown below are the components of the Company's goodwill at December 31, 2018 and September 30, 2019:

| (000's omitted) | December 31, 2018 | Activity | September 30, 2019 |
|---|---|---|---|
| Goodwill | $ 738,327 | $ 40,107 | $ 778,434 |
| Accumulated impairment | (4,824) | 0 | (4,824) |
| Goodwill, net | $ 733,503 | $ 40,107 | $ 773,610 |

**NOTE G: LEASES**

The Company has operating leases for certain offices and certain equipment. These leases have remaining terms that range from less than one year to 15 years. Options to extend the leases range from a single extension option of one year to multiple extension options for up to 40 years. Certain agreements include an option to terminate the lease within one year.

The components of lease expense are as follows:

| (000's omitted) | Three Months Ended September 30, 2019 | ine Months Ended eptember 30, 2019 |
|---|---|---|
| Operating lease cost | $ 2,231 | $ 6,493 |
| Variable lease cost | 9 | 9 |
| Short-term lease cost (1) | 77 | 180 |
| Total lease cost | $ 2,317 | $ 6,682 |

(1) Short-term lease cost includes the cost of leases with terms of twelve months or less, excluding leases with terms of one month or less.

Supplemental cash flow information related to leases is as follows:

| (000's omitted) | Nine Months Ended September 30, 2019 |
|---|---|
| Cash paid for amounts included in the measurement of lease liabilities: | |
| Operating cash outflows for operating leases | $ 5,987 |
| | |
| Right-of-use assets obtained in exchange for lease obligations: | |
| Operating leases | 13,766 |

Supplemental balance sheet information related to leases is as follows:

| (000's omitted, except lease term and discount rate) | September 30, 2019 |
|---|---|
| Operating leases | |
| Operating lease right-of-use assets | $ 41,948 |
| | |
| Operating lease liabilities | 42,769 |
| | |
| Weighted average remaining lease term | |
| Operating leases | 6.7 years |
| | |
| Weighted average discount rate | |
| Operating leases | 2.95% |

Maturities of lease liabilities as of September 30, 2019 are as follows:

| (000's omitted) | Operating Leases |
|---|---|
| Oct - Dec 2019 | $ 2,253 |
| 2020 | 9,372 |
| 2021 | 7,934 |
| 2022 | 6,645 |
| 2023 | 5,674 |
| Thereafter | 15,697 |
| Total lease payments | 47,575 |
| Less imputed interest | (4,806) |
| Total | $ 42,769 |

Included in the Company's operating leases are related party leases where BPAS Actuarial & Pension Services, LLC and OneGroup NY, Inc., subsidiaries of the Company, lease office space from 706 North Clinton, LLC., an entity the Company holds a 50% membership interest in through its subsidiary Oneida Preferred Funding II, LLC. As of September 30, 2019, the operating lease right-of-use assets and operating lease liabilities associated with these related party leases total $5.0 million and $5.0 million, respectively. As of September 30, 2019, the weighted average remaining lease term and weighted average discount rate for the Company's related party leases are 10.2 years and 3.67%, respectively. The maturities of the Company's related party lease liabilities as of September 30, 2019 are as follows:

| (000's omitted) | 706 North Clinton, LLC |
|---|---|
| Oct - Dec 2019 | $ 148 |
| 2020 | 591 |
| 2021 | 591 |
| 2022 | 591 |
| 2023 | 591 |
| Thereafter | 3,538 |
| Total lease payments | 6,050 |
| Less imputed interest | (1,011) |
| Total | $ 5,039 |

As of September 30, 2019, the Company has an immaterial amount of additional operating leases for offices and equipment that have not yet commenced.

**NOTE H: MANDATORILY REDEEMABLE PREFERRED SECURITIES**

As of September 30, 2019, the Company sponsors one business trust, Community Capital Trust IV ("CCT IV"), of which 100% of the common stock is owned by the Company. The Company previously sponsored MBVT Statutory Trust I ("MBVT I") and Kinderhook Capital Trust ("KCT") until September 16, 2019 when the Company exercised its right to redeem all of the MBVT I and KCT debentures and associated preferred securities for a total of $20.6 million and $2.1 million, respectively. The common stock of MBVT Statutory Trust I was acquired in the Merchants Bancshares, Inc. ("Merchants") acquisition and the common stock of Kinderhook Capital Trust was acquired in the Kinderhook Bank Corp. ("Kinderhook") acquisition. The trusts were formed for the purpose of issuing company-obligated mandatorily redeemable preferred securities to third-party investors and investing the proceeds from the sale of such preferred securities solely in junior subordinated debt securities of the Company. The debentures held by each trust are the sole assets of such trust. Distributions on the preferred securities issued by each trust are payable quarterly at a rate per annum equal to the interest rate being earned by the trust on the debentures held by that trust and are recorded as interest expense in the consolidated financial statements. The preferred securities are subject to mandatory redemption, in whole or in part, upon repayment of the debentures. The Company has entered into agreements which, taken collectively, fully and unconditionally guarantee the preferred securities subject to the terms of each of the guarantees. As of September 30, 2019, the terms of the preferred securities of CCT IV are as follows:

| Trust | Issuance Date | Par Amount | Interest Rate | Maturity Date | Call Price |
|---|---|---|---|---|---|
| CCT IV | 12/8/2006 | $75.0 million | 3 month LIBOR plus 1.65% (3.77%) | 12/15/2036 | Par |

**NOTE I: BENEFIT PLANS**

The Company provides a qualified defined benefit pension to eligible employees and retirees, other post-retirement health and life insurance benefits to certain retirees, an unfunded supplemental pension plan for certain key executives, and an unfunded stock balance plan for certain of its nonemployee directors. The Company accrues for the estimated cost of these benefits through charges to expense during the years that employees earn these benefits. The service cost component of net periodic benefit income is included in the salaries and employee benefits line of the Consolidated Statements of Income, while the other components of net periodic benefit income are included in other expenses. The Company made a $7.3 million contribution to its defined benefit pension plan in the first quarter of 2019.

Effective June 1, 2018, the Company adopted the Community Bank System, Inc. Restoration Plan ("Restoration Plan"). The Restoration Plan is a non-qualified deferred compensation plan for certain employees whose benefits under tax-qualified retirement plans are restricted by the Internal Revenue Code Section 401(a)(17) limitation on compensation. Adoption of the plan resulted in an unfunded initial projected benefit obligation of approximately $0.8 million that will be amortized over the average expected future years of service of active plan participants.

The net periodic benefit cost for the three and nine months ended September 30, 2019 and 2018 is as follows:

| | Pension Benefits | | | | Post-retirement Benefits | | | |
|---|---|---|---|---|---|---|---|---|
| | Three Months Ended September 30, | | Nine Months Ended September 30, | | Three Months Ended September 30, | | Nine Months Ended September 30, | |
| *(000's omitted)* | 2019 | 2018 | 2019 | 2018 | 2019 | 2018 | 2019 | 2018 |
| Service cost | $ 1,270 | $ 1,154 | $ 3,811 | $ 3,396 | $ 0 | $ 0 | $ 0 | $ 0 |
| Interest cost | 1,566 | 1,422 | 4,698 | 4,251 | 18 | 18 | 53 | 52 |
| Expected return on plan assets | (3,578) | (3,705) | (10,733) | (11,115) | 0 | 0 | 0 | 0 |
| Amortization of unrecognized net loss | 642 | 299 | 1,926 | 895 | 9 | 5 | 28 | 15 |
| Amortization of prior service cost | 17 | (60) | 48 | (225) | (45) | (45) | (134) | (134) |
| Net periodic benefit | $ (83) | $ (890) | $ (250) | $ (2,798) | $ (18) | $ (22) | $ (53) | $ (67) |

**NOTE J: EARNINGS PER SHARE**

The two class method is used in the calculations 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 and participation rights in undistributed earnings. The Company has determined that all of its outstanding non-vested stock awards are participating securities as of September 30, 2019.

Basic earnings per share are computed based on the weighted-average of the common shares outstanding for the period. Diluted earnings per share are based on the weighted-average of the shares outstanding and the assumed exercise of stock options during the year. The dilutive effect of options is calculated using the treasury stock method of accounting. The treasury stock method determines the number of common shares that would be outstanding if all the dilutive options (those where the average market price is greater than the exercise price) were exercised and the proceeds were used to repurchase common shares in the open market at the average market price for the applicable time period. There were approximately 0.5 million weighted-average anti-dilutive stock options outstanding for the three months and nine months ended September 30, 2019, compared to 0.4 million weighted-average anti-dilutive stock options outstanding for the three months and nine months ended September 30, 2018 that were not included in the computation below.

The following is a reconciliation of basic to diluted earnings per share for the three and nine months ended September 30, 2019 and 2018:

| | Three Months Ended September 30, | | Nine Months Ended September 30, | |
|---|---|---|---|---|
| *(000's omitted, except per share data)* | 2019 | 2018 | 2019 | 2018 |
| Net income | $ 39,218 | $ 43,106 | $ 126,179 | $ 127,818 |
| Income attributable to unvested stock-based compensation awards | (102) | (191) | (331) | (563) |
| Income available to common shareholders | $ 39,116 | $ 42,915 | $ 125,848 | $ 127,255 |
| | | | | |
| Weighted-average common shares outstanding – basic | 51,750 | 51,250 | 51,644 | 51,108 |
| Basic earnings per share | $ 0.76 | $ 0.84 | $ 2.44 | $ 2.49 |
| | | | | |
| Net income | $ 39,218 | $ 43,106 | $ 126,179 | $ 127,818 |
| Income attributable to unvested stock-based compensation awards | (102) | (191) | (331) | (563) |
| Income available to common shareholders | $ 39,116 | $ 42,915 | $ 125,848 | $ 127,255 |
| | | | | |
| Weighted-average common shares outstanding – basic | 51,750 | 51,250 | 51,644 | 51,108 |
| Assumed exercise of stock options | 496 | 608 | 522 | 590 |
| Weighted-average common shares outstanding – diluted | 52,246 | 51,858 | 52,166 | 51,698 |
| Diluted earnings per share | $ 0.75 | $ 0.83 | $ 2.41 | $ 2.46 |

*Stock Repurchase Program*

At its December 2017 meeting, the Company's Board of Directors (the "Board") approved a stock repurchase program authorizing the repurchase of up to 2.5 million shares of the Company's common stock in accordance with securities laws and regulations, through December 31, 2018. At its December 2018 meeting, the Board approved a similar program for 2019, authorizing the repurchase of up to 2.5 million shares of the Company's common stock through December 31, 2019. Any repurchased shares will be used for general corporate purposes, including those related to stock plan activities. The timing and extent of repurchases will depend on market conditions and other corporate considerations as determined at the Company's discretion. The Company did not repurchase any shares under the authorized plan during the first nine months of 2019 or 2018.

**NOTE K: COMMITMENTS, CONTINGENT LIABILITIES AND RESTRICTIONS**

The Company is a party to financial instruments with off-balance sheet risk in the normal course of business to meet the financing needs of its customers. These financial instruments consist primarily of commitments to extend credit and standby letters of credit. Commitments to extend credit are agreements to lend to customers, generally having fixed expiration dates or other termination clauses that may require payment of a fee. These commitments consist principally of unused commercial and consumer credit lines. Standby letters of credit generally are contingent upon the failure of the customer to perform according to the terms of an underlying contract with a third party. The credit risks associated with commitments to extend credit and standby letters of credit are essentially the same as that involved with extending loans to customers and are subject to the Company's normal credit policies. Collateral may be obtained based on management's assessment of the customer's creditworthiness. The fair value of the standby letters of credit is immaterial for disclosure.

The contract amounts of commitments and contingencies are as follows:

| (000's omitted) | September 30, 2019 | December 31, 2018 |
|---|---|---|
| Commitments to extend credit | $ 1,065,127 | $ 1,134,576 |
| Standby letters of credit | 37,968 | 33,169 |
| Total | $ 1,103,095 | $ 1,167,745 |

The Company and its subsidiaries are subject in the normal course of business to various pending and threatened legal proceedings in which claims for monetary damages are asserted. As of September 30, 2019, management, after consultation with legal counsel, does not anticipate that the aggregate ultimate liability arising out of litigation pending or threatened against the Company or its subsidiaries will be material to the Company's consolidated financial position. On at least a quarterly basis, the Company assesses its liabilities and contingencies in connection with such legal proceedings. For those matters where it is probable that the Company will incur losses and the amounts of the losses can be reasonably estimated, the Company records an expense and corresponding liability in its consolidated financial statements. To the extent the pending or threatened litigation could result in exposure in excess of that liability, the amount of such excess is not currently estimable. The range of reasonably possible losses for matters where an exposure is not currently estimable or considered probable, beyond the existing recorded liabilities, is believed to be between $0 and $1 million in the aggregate. Although the Company does not believe that the outcome of pending litigation will be material to the Company's consolidated financial position, it cannot rule out the possibility that such outcomes will be material to the consolidated results of operations for a particular reporting period in the future.

**NOTE L: FAIR VALUE**

Accounting standards establish a framework for measuring fair value and require certain disclosures about such fair value instruments. It defines fair value as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date (i.e. exit price). Inputs used to measure fair value are classified into the following hierarchy:

- Level 1 - Quoted prices in active markets for identical assets or liabilities.
- Level 2 - Quoted prices in active markets for similar assets or liabilities, or quoted prices for identical or similar assets or liabilities in markets that are not active, or inputs other than quoted prices that are observable for the asset or liability.
- Level 3 - Significant valuation assumptions not readily observable in a market.

A financial instrument's categorization within the valuation hierarchy is based upon the lowest level of input that is significant to the fair value measurement. The following tables set forth the Company's financial assets and liabilities that were accounted for at fair value on a recurring basis. There were no transfers between any of the levels for the periods presented.

| | September 30, 2019 | | | |
|---|---|---|---|---|
| (000's omitted) | Level 1 | Level 2 | Level 3 | Total Fair Value |
| Available-for-sale investment securities: | | | | |
| U.S. Treasury and agency securities | $ 1,343,370 | $ 163,277 | $ 0 | $ 1,506,647 |
| Obligations of state and political subdivisions | 0 | 458,090 | 0 | 458,090 |
| Government agency mortgage-backed securities | 0 | 411,816 | 0 | 411,816 |
| Corporate debt securities | 0 | 2,540 | 0 | 2,540 |
| Government agency collateralized mortgage obligations | 0 | 58,009 | 0 | 58,009 |
| Total available-for-sale investment securities | 1,343,370 | 1,093,732 | 0 | 2,437,102 |
| Equity securities | 461 | 0 | 0 | 461 |
| Interest rate swap agreements asset | 0 | 1,095 | 0 | 1,095 |
| Interest rate swap agreements liability | 0 | (748) | 0 | (748) |
| Total | $ 1,343,831 | $ 1,094,079 | $ 0 | $ 2,437,910 |

| (000's omitted) | December 31, 2018 Level 1 | Level 2 | Level 3 | Total Fair Value |
|---|---|---|---|---|
| Available-for-sale investment securities: | | | | |
| U.S. Treasury and agency securities | $ 1,896,931 | $ 126,822 | $ 0 | $ 2,023,753 |
| Obligations of state and political subdivisions | 0 | 459,154 | 0 | 459,154 |
| Government agency mortgage-backed securities | 0 | 382,477 | 0 | 382,477 |
| Corporate debt securities | 0 | 2,546 | 0 | 2,546 |
| Government agency collateralized mortgage obligations | 0 | 68,119 | 0 | 68,119 |
| Total available-for-sale investment securities | 1,896,931 | 1,039,118 | 0 | 2,936,049 |
| Equity securities | 432 | 0 | 0 | 432 |
| Mortgage loans held for sale | 0 | 83 | 0 | 83 |
| Interest rate swap agreements asset | 0 | 793 | 0 | 793 |
| Interest rate swap agreements liability | 0 | (742) | 0 | (742) |
| Total | $ 1,897,363 | $ 1,039,252 | $ 0 | $ 2,936,615 |

The valuation techniques used to measure fair value for the items in the table above are as follows:

- Available-for-sale investment securities and equity securities – The fair values of available-for-sale investment securities are based upon quoted prices, if available. If quoted prices are not available, fair values are measured using quoted market prices for similar securities or model-based valuation techniques. Level 1 securities include U.S. Treasury obligations and marketable equity securities that are traded by dealers or brokers in active over-the-counter markets. Level 2 securities include U.S. agency securities, mortgage-backed securities issued by government-sponsored entities, municipal securities and corporate debt securities that are valued by reference to prices for similar securities or through model-based techniques in which all significant inputs, such as reported trades, trade execution data, LIBOR swap yield curve, market prepayment speeds, credit information, market spreads, and security's terms and conditions, are observable. See Note D for further disclosure of the fair value of investment securities.

- Mortgage loans held for sale – The Company has elected to value loans held for sale at fair value in order to more closely match the gains and losses associated with loans held for sale with the gains and losses on forward sales contracts. Accordingly, the impact on the valuation will be recognized in the Company's consolidated statement of income. All mortgage loans held for sale are current and in performing status. The fair value of mortgage loans held for sale is determined using quoted secondary-market prices of loans with similar characteristics and, as such, has been classified as a Level 2 valuation. There were no mortgage loans held for sale at September 30, 2019. The unpaid principal value of mortgage loans held for sale was approximately $0.1 million at December 31, 2018. The unrealized gain on mortgage loans held for sale was recognized in other banking revenues in the consolidated statements of income and is immaterial.

- Forward sales commitments – The Company enters into forward sales commitments to sell certain residential real estate loans. Such commitments are considered to be derivative financial instruments and, therefore, are carried at estimated fair value in the other asset or other liability section of the consolidated statement of condition. The fair value of these forward sales commitments is primarily measured by obtaining pricing from certain government-sponsored entities and reflects the underlying price the entity would pay the Company for an immediate sale on these mortgages. As such, these instruments are classified as Level 2 in the fair value hierarchy.

- Commitments to originate real estate loans for sale – The Company enters into various commitments to originate residential real estate loans for sale. Such commitments are considered to be derivative financial instruments and, therefore, are carried at estimated fair value in the other asset or other liability section of the consolidated statement of condition. The estimated fair value of these commitments is determined using quoted secondary market prices obtained from certain government-sponsored entities. Additionally, accounting guidance requires the expected net future cash flows related to the associated servicing of the loan to be included in the fair value measurement of the derivative. The expected net future cash flows are based on a valuation model that calculates the present value of estimated net servicing income. The valuation model incorporates assumptions that market participants would use in estimating future net servicing income. Such assumptions include estimates of the cost of servicing loans, appropriate discount rate and prepayment speeds. The determination of expected net cash flows is considered a significant unobservable input contributing to the Level 3 classification of commitments to originate real estate loans for sale.

- Interest rate swaps – The interest rate swaps are reported at their fair value utilizing Level 2 inputs from third parties. The fair value of the interest rate swaps are determined using prices obtained from a third party advisor. The fair value measurement of the interest rate swap is determined by netting the discounted future fixed cash payments and the discounted expected variable cash receipts. The variable cash receipts are based on the expectation of future interest rates derived from observed market interest rate curves.

The changes in Level 3 assets measured at fair value on a recurring basis are immaterial.

The fair value information of assets and liabilities measured on a non-recurring basis presented below is not as of the period-end, but rather as of the date the fair value adjustment was recorded closest to the date presented.

| | September 30, 2019 | | | | December 31, 2018 | | | |
|---|---|---|---|---|---|---|---|---|
| *(000's omitted)* | Level 1 | Level 2 | Level 3 | Total Fair Value | Level 1 | Level 2 | Level 3 | Total Fair Value |
| Impaired loans | $ 0 | $ 0 | $ 1,729 | $ 1,729 | $ 0 | $ 0 | $ 1,102 | $ 1,102 |
| Mortgage servicing rights | 0 | 0 | 93 | 93 | 0 | 0 | 0 | 0 |
| Other real estate owned | 0 | 0 | 1,258 | 1,258 | 0 | 0 | 1,320 | 1,320 |
| Total | $ 0 | $ 0 | $ 3,080 | $ 3,080 | $ 0 | $ 0 | $ 2,422 | $ 2,422 |

Loans are generally not recorded at fair value on a recurring basis. Periodically, the Company records nonrecurring adjustments to the carrying value of loans based on fair value measurements for partial charge-offs of the uncollectible portions of those loans. Nonrecurring adjustments also include certain impairment amounts for collateral-dependent loans calculated when establishing the allowance for loan losses. Such amounts are generally based on the fair value of the underlying collateral supporting the loan and, as a result, the carrying value of the loan less the calculated valuation amount does not necessarily represent the fair value of the loan. Real estate collateral is typically valued using independent appraisals or other indications of value based on recent comparable sales of similar properties or assumptions generally observable in the marketplace, adjusted for non-observable inputs. Thus, the resulting nonrecurring fair value measurements are generally classified as Level 3. Estimates of fair value used for other collateral supporting commercial loans generally are based on assumptions not observable in the marketplace and, therefore, such valuations classify as Level 3.

Originated mortgage servicing rights are recorded at their fair value at the time of sale of the underlying loan, and are amortized in proportion to and over the estimated period of net servicing income. The fair value of mortgage servicing rights is based on a valuation model incorporating inputs that market participants would use in estimating future net servicing income. Such inputs include estimates of the cost of servicing loans, appropriate discount rate and prepayment speeds and are considered to be unobservable and contribute to the Level 3 classification of mortgage servicing rights. In accordance with GAAP, the Company must record impairment charges, on a nonrecurring basis, when the carrying value of a stratum exceeds its estimated fair value. Impairment is recognized through a valuation allowance. There is a valuation allowance at September 30, 2019 of approximately $0.3 million. There is no valuation allowance at December 31, 2018.

Other real estate owned ("OREO") is valued at the time the loan is foreclosed upon and the asset is transferred to OREO. The value is based primarily on third party appraisals, less costs to sell. The appraisals are sometimes further discounted based on management's historical knowledge, changes in market conditions from the time of valuation, and/or management's expertise and knowledge of the customer and customer's business. Such discounts are significant, ranging from 0.5% to 77.4% at September 30, 2019 and result in a Level 3 classification of the inputs for determining fair value. OREO is reviewed and evaluated on at least a quarterly basis for additional impairment and adjusted accordingly, based on the same factors identified above. The Company recovers the carrying value of OREO through the sale of the property. The ability to affect future sales prices is subject to market conditions and factors beyond the Company's control and may impact the estimated fair value of a property.

The Company determines fair values based on quoted market values, where available, estimates of present values, or other valuation techniques. Those techniques are significantly affected by the assumptions used, including, but not limited to, the discount rate and estimates of future cash flows. In that regard, the derived fair value estimates cannot be substantiated by comparison to independent markets and, in many cases, may not be realized in immediate settlement of the instrument. The significant unobservable inputs used in the determination of fair value of assets classified as Level 3 on a recurring or non-recurring basis are as follows:

| *(000's omitted)* | Fair Value at September 30, 2019 | Valuation Technique | Significant Unobservable Inputs | Significant Unobservable Input Range (Weighted Average) |
|---|---|---|---|---|
| Impaired loans | $ 1,729 | Fair value of collateral | Estimated cost of disposal/market adjustment | 9.0% - 40.4% (40.4%) |
| Other real estate owned | 1,258 | Fair value of collateral | Estimated cost of disposal/market adjustment | 0.5% - 77.4% (35.7%) |
| Mortgage servicing rights | 93 | Discounted cash flow | Weighted average constant prepayment rate | 43.0% |
| | | | Weighted average discount rate | 2.69% |
| | | | Adequate compensation | $7/loan |

| (000's omitted) | Fair Value at December 31, 2018 | Valuation Technique | Significant Unobservable Inputs | Significant Unobservable Input Range (Weighted Average) |
|---|---|---|---|---|
| Impaired loans | $ 1,102 | Fair value of collateral | Estimated cost of disposal/market adjustment | 9.0% - 35.4% (28.8%) |
| Other real estate owned | 1,320 | Fair value of collateral | Estimated cost of disposal/market adjustment | 9.0% - 69.3% (23.8%) |

Certain financial instruments and all nonfinancial instruments are excluded from fair value disclosure requirements. Accordingly, the aggregate fair value amounts presented do not represent the underlying value of the Company. The carrying amounts and estimated fair values of the Company's other financial instruments that are not accounted for at fair value at September 30, 2019 and December 31, 2018 are as follows:

| | September 30, 2019 | | December 31, 2018 | |
|---|---|---|---|---|
| (000's omitted) | Carrying Value | Fair Value | Carrying Value | Fair Value |
| Financial assets: | | | | |
| Net loans | $ 6,803,768 | $ 6,971,242 | $ 6,231,837 | $ 6,247,939 |
| Financial liabilities: | | | | |
| Deposits | 9,168,285 | 9,166,701 | 8,322,371 | 8,308,765 |
| Short-term borrowings | 0 | 0 | 54,400 | 54,400 |
| Securities sold under agreement to repurchase, short-term | 233,333 | 233,333 | 259,367 | 259,367 |
| Other long-term debt | 4,328 | 4,303 | 1,976 | 1,921 |
| Subordinated notes payable | 13,814 | 13,814 | 0 | 0 |
| Subordinated debt held by unconsolidated subsidiary trusts | 77,320 | 77,320 | 97,939 | 97,939 |

The following is a further description of the principal valuation methods used by the Company to estimate the fair values of its financial instruments.

Loans have been classified as a Level 3 valuation. Fair values for variable rate loans that reprice frequently are based on carrying values. Fair values for fixed rate loans are estimated using discounted cash flows and interest rates currently being offered for loans with similar terms to borrowers of similar credit quality.

Deposits have been classified as a Level 2 valuation. The fair value of demand deposits, interest-bearing checking deposits, savings accounts, and money market deposits is the amount payable on demand at the reporting date. The fair value of time deposit obligations are based on current market rates for similar products.

Borrowings, subordinated notes payable and subordinated debt held by unconsolidated subsidiary trusts have been classified as a Level 2 valuation. The fair value of short-term borrowings and securities sold under agreement to repurchase, short-term, is the amount payable on demand at the reporting date. Fair values for long-term debt, subordinated notes payable and subordinated debt held by unconsolidated subsidiary trusts are estimated using discounted cash flows and interest rates currently being offered on similar securities. The difference between the carrying values of long-term borrowings, subordinated notes payable and subordinated debt held by unconsolidated subsidiary trusts, and their fair values, are not material as of the reporting dates.

Other financial assets and liabilities – Cash and cash equivalents have been classified as a Level 1 valuation, while accrued interest receivable and accrued interest payable have been classified as a Level 2 valuation. The fair values of each approximate the respective carrying values because the instruments are payable on demand or have short-term maturities and present relatively low credit risk and interest rate risk.

**NOTE M: DERIVATIVE INSTRUMENTS**

The Company is party to derivative financial instruments in the normal course of its business to meet the financing needs of its customers and to manage its own exposure to fluctuations in interest rates. These financial instruments have been limited to interest rate swap agreements, commitments to originate real estate loans held for sale and forward sales commitments. The Company does not hold or issue derivative financial instruments for trading or other speculative purposes.

The Company enters into forward sales commitments for the future delivery of residential mortgage loans, and interest rate lock commitments to fund loans at a specified interest rate. The forward sales commitments are utilized to reduce interest rate risk associated with interest rate lock commitments and loans held for sale. Changes in the estimated fair value of the forward sales commitments and interest rate lock commitments subsequent to inception are based on changes in the fair value of the underlying loan resulting from the fulfillment of the commitment and changes in the probability that the loan will fund within the terms of the commitment, which is affected primarily by changes in interest rates and the passage of time. At inception and during the life of the interest rate lock commitment, the Company includes the expected net future cash flows related to the associated servicing of the loan as part of the fair value measurement of the interest rate lock commitments. These derivatives are recorded at fair value, which were immaterial at September 30, 2019 and December 31, 2018. The effect of the changes to these derivatives for the three and nine months then ended was also immaterial.

The Company acquired interest rate swaps in 2017 with notional amounts with certain commercial customers which totaled $16.8 million at September 30, 2019 and $37.0 million at December 31, 2018. In order to minimize the Company's risk, these customer derivatives (pay floating/receive fixed swaps) have been offset with essentially matching interest rate swaps (pay fixed/receive floating swaps) with the Company's counterparty totaling $16.8 million at September 30, 2019 and $37.0 million at December 31, 2018. At September 30, 2019, the weighted average receive rate of these interest rate swaps was 4.01%, the weighted average pay rate was 4.38% and the weighted average maturity was 6.4 years. At December 31, 2018, the weighted average receive rate of these interest rate swaps was 4.34%, the weighted average pay rate was 3.84% and the weighted average maturity was 5.5 years. Hedge accounting has not been applied for these derivatives. Since the terms of the swaps with the customer and the other financial institution offset each other, with the only difference being counterparty credit risk, changes in the fair value of the underlying derivative contracts are not materially different and do not significantly impact our results of operations.

The Company also acquired interest rate swaps in 2017 with notional amounts totaling $6.2 million at September 30, 2019, and $6.6 million at December 31, 2018, that were designated as fair value hedges of certain fixed rate loans with municipalities which are recorded in loans in the consolidated statements of condition. At September 30, 2019, the weighted average receive rate of these interest rate swaps was 2.65%, the weighted average pay rate was 3.11% and the weighted average maturity was 13.8 years. At December 31, 2018, the weighted average receive rate of these interest rate swaps was 2.92%, the weighted average pay rate was 3.11% and the weighted average maturity was 14.5 years. The Company includes the gain or loss on the hedged items in interest and fees on loans, the same line item as the offsetting gain or loss on the related interest rate swaps. The effects of fair value accounting in the consolidated statements of income for the three and nine months ended September 30, 2019 are immaterial.

As of September 30, 2019, the following amounts were recorded in the consolidated statement of condition related to cumulative basis adjustments for fair value hedges:

(000's omitted)

| Line Item in the Consolidated Statement of Condition in Which the Hedged Item Is Included | Carrying Amount of the Hedged Assets<br>September 30, 2019 | Cumulative Amount of Fair Value Hedging Adjustment Included in the Carrying Amount of the Hedged Assets<br>September 30, 2019 |
|---|---|---|
| Loans | $ 6,307 | $ (347) |

Fair values of derivative instruments as of September 30, 2019 are as follows:

(000's omitted) September 30, 2019

| | Derivative Assets | | Derivative Liabilities | |
|---|---|---|---|---|
| | Consolidated Statement of Condition Location | Fair Value | Consolidated Statement of Condition Location | Fair Value |
| Derivatives designated as hedging instruments under Subtopic 815-20 | | | | |
| Interest rate swaps | Other assets | $ 347 | | |
| Derivatives not designated as hedging instruments under Subtopic 815-20 | | | | |
| Interest rate swaps | Other assets | 748 | Accrued interest and other liabilities | $ 748 |
| Total derivatives | | $ 1,095 | | $ 748 |

The Company assessed its counterparty risk at September 30, 2019 and determined any credit risk inherent in our derivative contracts was not material. Information about the fair value of derivative financial instruments can be found in Note L to these consolidated financial statements.

**NOTE N: SEGMENT INFORMATION**

Operating segments are components of an enterprise, which are evaluated regularly by the "chief operating decision maker" in deciding how to allocate resources and assess performance. The Company's chief operating decision maker is the President and Chief Executive Officer of the Company. The Company has identified Banking, Employee Benefit Services and All Other as its reportable operating business segments. Community Bank, N.A. (the "Bank" or "CBNA") operates the Banking segment that provides full-service banking to consumers, businesses, and governmental units in Upstate New York as well as Northeastern Pennsylvania, Vermont and Western Massachusetts. Employee Benefit Services, which includes the operating subsidiaries Benefit Plans Administrative Services, LLC, BPAS Actuarial and Pension Services, LLC, BPAS Trust Company of Puerto Rico, Northeast Retirement Services, LLC ("NRS"), Global Trust Company, Inc. ("GTC"), and Hand Benefits & Trust Company, provides employee benefit trust, collective investment fund, retirement plan administration, fund administration, transfer agency, actuarial, VEBA/HRA, and health and welfare consulting services. The All Other segment is comprised of: (a) wealth management services including trust services provided by the personal trust unit within the Bank, broker-dealer and investment advisory services provided by CISI and The Carta Group, Inc., as well as asset management provided by Nottingham Advisors, Inc., and (b) full-service insurance, risk management and employee benefit services provided by OneGroup. The accounting policies used in the disclosure of business segments are the same as those described in the summary of significant accounting policies (See Note A, *Summary of Significant Accounting Policies* of the most recent Form 10-K for the year ended December 31, 2018 filed with the SEC on March 1, 2019).

Information about reportable segments and reconciliation of the information to the consolidated financial statements follows:

| (000's omitted) | Banking | Employee Benefit Services | All Other | Eliminations | Consolidated Total |
|---|---|---|---|---|---|
| **Three Months Ended September 30, 2019** | | | | | |
| Net interest income | $ 91,018 | $ 209 | $ 49 | $ 0 | $ 91,276 |
| Provision for loan losses | 1,751 | 0 | 0 | 0 | 1,751 |
| Noninterest revenues | 17,790 | 24,830 | 15,143 | (669) | 57,094 |
| Amortization of intangible assets | 1,439 | 1,667 | 854 | 0 | 3,960 |
| Acquisition expenses | 6,061 | 0 | 0 | 0 | 6,061 |
| Other operating expenses | 61,839 | 14,721 | 11,017 | (669) | 86,908 |
| Income before income taxes | $ 37,718 | $ 8,651 | $ 3,321 | $ 0 | $ 49,690 |
| Assets | $ 11,398,191 | $ 201,442 | $ 74,169 | $ (76,505) | $ 11,597,297 |
| Goodwill | $ 670,023 | $ 83,275 | $ 20,312 | $ 0 | $ 773,610 |
| Core deposit intangibles & Other intangibles | $ 17,872 | $ 39,440 | $ 9,763 | $ 0 | $ 67,075 |
| | | | | | |
| **Three Months Ended September 30, 2018** | | | | | |
| Net interest income | $ 86,060 | $ 102 | $ 36 | $ 0 | $ 86,198 |
| Provision for loan losses | 2,215 | 0 | 0 | 0 | 2,215 |
| Noninterest revenues | 18,002 | 23,815 | 14,737 | (763) | 55,791 |
| Amortization of intangible assets | 1,535 | 1,970 | 922 | 0 | 4,427 |
| Acquisition expenses | (832) | 0 | 0 | 0 | (832) |
| Other operating expenses | 57,863 | 14,025 | 10,513 | (763) | 81,638 |
| Income before income taxes | $ 43,281 | $ 7,922 | $ 3,338 | $ 0 | $ 54,541 |
| Assets | $ 10,440,732 | $ 205,565 | $ 66,470 | $ (53,200) | $ 10,659,567 |
| Goodwill | $ 629,916 | $ 83,275 | $ 20,288 | $ 0 | $ 733,479 |
| Core deposit intangibles & Other intangibles | $ 20,111 | $ 46,514 | $ 11,596 | $ 0 | $ 78,221 |

| (000's omitted) | Banking | Employee Benefit Services | All Other | Eliminations | Consolidated Total |
|---|---|---|---|---|---|
| **Nine Months Ended September 30, 2019** | | | | | |
| Net interest income | $ 265,860 | $ 448 | $ 127 | $ 0 | $ 266,435 |
| Provision for loan losses | 5,573 | 0 | 0 | 0 | 5,573 |
| Noninterest revenues | 57,059 | 73,919 | 44,749 | (2,231) | 173,496 |
| Amortization of intangible assets | 4,297 | 5,105 | 2,592 | 0 | 11,994 |
| Acquisition expenses | 7,789 | 0 | 0 | 0 | 7,789 |
| Other operating expenses | 182,186 | 43,985 | 33,034 | (2,231) | 256,974 |
| Income before income taxes | $ 123,074 | $ 25,277 | $ 9,250 | $ 0 | $ 157,601 |
| | | | | | |
| **Nine Months Ended September 30, 2018** | | | | | |
| Net interest income | $ 257,313 | $ 264 | $ 91 | $ 0 | $ 257,668 |
| Provision for loan losses | 8,342 | 0 | 0 | 0 | 8,342 |
| Noninterest revenues | 58,399 | 70,316 | 43,285 | (2,159) | 169,841 |
| Amortization of intangible assets | 4,914 | 6,047 | 2,819 | 0 | 13,780 |
| Acquisition expenses | (782) | 7 | 6 | 0 | (769) |
| Other operating expenses | 172,283 | 41,938 | 32,603 | (2,159) | 244,665 |
| Income before income taxes | $ 130,955 | $ 22,588 | $ 7,948 | $ 0 | $ 161,491 |

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

This Management's Discussion and Analysis of Financial Condition and Results of Operations ("MD&A") primarily reviews the financial condition and results of operations of Community Bank System, Inc. (the "Company" or "CBSI") as of and for the three and nine months ended September 30, 2019 and 2018, although in some circumstances the second quarter of 2019 is also discussed in order to more fully explain recent trends. The following discussion and analysis should be read in conjunction with the Company's Consolidated Financial Statements and related notes that appear on pages 3 through 30. All references in the discussion of the financial condition and results of operations refer to the consolidated position and results of the Company and its subsidiaries taken as a whole. Unless otherwise noted, the term "this year" and equivalent terms refers to results in calendar year 2019, "third quarter" refers to the three months ended September 30, 2019, "YTD" refers to the nine months ended September 30, 2019, and earnings per share ("EPS") figures refer to diluted EPS.

This MD&A contains certain forward-looking statements with respect to the financial condition, results of operations, and business of the Company. These forward-looking statements involve certain risks and uncertainties. Factors that may cause actual results to differ materially from those contemplated by such forward-looking statements are set herein under the caption, "Forward-Looking Statements," on page 48.

**Critical Accounting Policies**

As a result of the complex and dynamic nature of the Company's business, management must exercise judgment in selecting and applying the most appropriate accounting policies for its various areas of operations. The policy decision process not only ensures compliance with the current accounting principles generally accepted in the United States of America ("GAAP"), but also reflects management's discretion with regard to choosing the most suitable methodology for reporting the Company's financial performance. It is management's opinion that the accounting estimates covering certain aspects of the business have more significance than others due to the relative importance of those areas to overall performance, or the level of subjectivity in the selection process. These estimates affect the reported amounts of assets and liabilities as well as disclosures of revenues and expenses during the reporting period. Actual results could differ from these estimates. Management believes that the critical accounting estimates include the allowance for loan losses, actuarial assumptions associated with the pension, post-retirement and other employee benefit plans, the provision for income taxes, investment valuation and other-than-temporary impairment, the carrying value of goodwill and other intangible assets, and acquired loan valuations. A summary of the accounting policies used by management is disclosed in Note A, "Summary of Significant Accounting Policies" on pages 65-75 of the most recent Form 10-K (fiscal year ended December 31, 2018) filed with the Securities and Exchange Commission ("SEC") on March 1, 2019.

**Supplemental Reporting of Non-GAAP Results of Operations**

The Company also provides supplemental reporting of its results on an "operating," "adjusted" and "tangible" basis, from which it excludes the after-tax effect of amortization of core deposit and other intangible assets (and the related goodwill, core deposit intangible and other intangible asset balances, net of applicable deferred tax amounts), accretion on non-impaired purchased loans, acquisition expenses, the unrealized gain (loss) on equity securities, the net gain on sale of investment securities, and loss on debt extinguishment. Although "adjusted net income" as defined by the Company is a non-GAAP measure, the Company's management believes this information helps investors understand the effect of acquisition and other non-recurring activity in its reported results. Diluted adjusted net earnings per share were $0.88 in the third quarter of 2019, compared to $0.84 in the third quarter of 2018, a 4.8% increase. Reconciliations of GAAP amounts with corresponding non-GAAP amounts are presented in Table 11.

**Executive Summary**

The Company's business philosophy is to operate as a diversified financial services enterprise providing a broad array of banking and financial services to retail, commercial and municipal customers. The Company's banking subsidiary is Community Bank, N.A. (the "Bank" or "CBNA"). The Company also provides employee benefit related services via its Benefit Plans Administrative Services, Inc. ("BPAS") subsidiary, and wealth management and insurance-related services.

The Company's core operating objectives are: (i) grow the banking branch network, primarily through a disciplined acquisition strategy, and certain selective de novo expansions, (ii) build profitable loan and deposit volume using both organic and acquisition strategies, (iii) increase the noninterest component of total revenues through development of banking-related fee income, growth in existing financial services business units, and the acquisition of additional financial services and banking businesses, and (iv) utilize technology to deliver customer-responsive products and services and improve efficiencies.

Significant factors reviewed by management to evaluate achievement of the Company's operating objectives and its operating results and financial condition include, but are not limited to: net income and earnings per share, return on assets and equity, components of net interest margin, noninterest revenues, noninterest expenses, asset quality, loan and deposit growth, capital management, performance of individual banking and financial services units, performance of product lines and customers, liquidity and interest rate sensitivity, enhancements to customer products and services and their underlying performance characteristics, technology advancements, market share, peer comparisons, and the performance of recently acquired businesses.

On October 21, 2019, the Company announced that it had entered into a definitive agreement to acquire Steuben Trust Corporation ("Steuben"), parent company of Steuben Trust Company, a New York State chartered bank headquartered in Hornell, New York, for approximately $106.8 million in Company stock and cash. The acquisition will add 15 branch locations, extend the Company's footprint into two new counties in Western New York State, and enhance the Company's presence in four Western New York State counties in which it currently operates. The acquisition is expected to close during the second quarter of 2020, pending both customary regulatory and Steuben shareholder approval. The Company expects to incur certain one-time, transaction-related costs in 2019 and 2020 in connection with the Steuben acquisition.

On September 18, 2019, the Company, through its subsidiary, Community Investment Services, Inc. ("CISI"), completed its acquisition of certain assets of a practice engaged in the financial services business headquartered in Syracuse, New York. The Company paid $0.5 million in cash to acquire a customer list, and recorded a $0.5 million customer list intangible asset in conjunction with the acquisition.

On July 12, 2019, the Company completed its merger with Kinderhook Bank Corp. ("Kinderhook"), parent company of The National Union Bank of Kinderhook, headquartered in Kinderhook, New York, for $93.4 million in cash. The merger added 11 branch locations across a five county area in the Capital District of Upstate New York. The merger resulted in the acquisition of $642.9 million of assets, including $479.9 million of loans and $39.8 million of investment securities, as well as $568.1 million of deposits and $40.1 million in goodwill.

On January 2, 2019, the Company, through its subsidiary, CISI, completed its acquisition of certain assets of Wealth Resources Network, Inc. ("Wealth Resources"), a financial services business headquartered in Liverpool, New York. The Company paid $1.2 million in cash to acquire a customer list from Wealth Resources, and recorded a $1.2 million customer list intangible asset in conjunction with the acquisition.

Third quarter and YTD net income decreased compared to the 2018 timeframes by $3.9 million, or 9.0%, and $1.6 million, or 1.3%, respectively. Earnings per share of $0.75 for the third quarter of 2019 was down $0.08 compared to the third quarter of 2018, and 2019 YTD earnings per share of $2.41 was $0.05 lower than 2018 YTD earnings per share. The decreases in net income and earnings per share were primarily due to increases in noninterest expenses including acquisition expenses associated with the Kinderhook transaction and an increase in diluted shares outstanding, partially offset by higher net interest income, a lower provision for loan losses, higher noninterest revenues and lower income taxes. Third quarter and YTD net income adjusted to exclude acquisition expenses, net gain on sale of investments, unrealized gain on equity securities and loss on debt extinguishment ("operating net income") increased $1.9 million, or 4.5%, as compared to the third quarter of 2018 and increased $1.5 million, or 1.2%, compared to September YTD 2018. Earnings per share adjusted to exclude acquisition expenses, net gain on sale of investment securities, unrealized gain on equity securities and loss on debt extinguishment ("operating earnings per share") of $0.84 for the third quarter increased $0.03 compared to the third quarter of 2018. Operating earnings per share of $2.45 for the first nine months of 2019 increased $0.01 compared to the prior year period.

The Company's loan and deposit balances increased on both an average and ending basis as compared to the corresponding prior year period and the fourth quarter of 2018. The increase in loans was a result of the Kinderhook acquisition completed in July 2019 combined with organic growth. The increase in deposit balances was also due primarily to the Kinderhook acquisition. The Company's total cost of funds for the first nine months of 2019 increased 10 basis points from the year earlier period, as the rate paid on interest-bearing deposits and the rate on borrowings both increased from the prior year period. The majority of borrowings are customer repurchase agreements, rather than wholesale borrowings obtained through capital markets and correspondent banks. Customer repurchase agreements have deposit-like features and typically bear lower rates of interest than other types of wholesale borrowings.

The provision for loan losses of $1.8 million for the third quarter and $5.6 million for YTD 2019, were $0.5 million and $2.8 million lower than comparable prior year periods, as the Company's asset quality remained stable. Net charge-offs were $1.6 million for the third quarter and $5.4 million for the first nine months of 2019, compared to $1.7 million of net charge-offs for the prior year third quarter and $5.8 million for the first nine months of 2018. Third quarter 2019 nonperforming loan ratios were slightly higher than third quarter 2018 nonperforming loan ratios.

**Net Income and Profitability**

As shown in Table 1, net income for the third quarter and September YTD of $39.2 million and $126.2 million, respectively, decreased $3.9 million, or 9.0%, as compared to the third quarter of 2018 and decreased $1.6 million, or 1.3%, compared to September YTD 2018. Earnings per share of $0.75 for the third quarter was $0.08 lower than the third quarter of 2018, while earnings per share for the first nine months of 2019 of $2.41 was $0.05 lower than the first nine months of 2018. The decrease in net income and earnings per share for the quarter are primarily the result of higher noninterest expenses, including $6.1 million in acquisition expenses related to the Kinderhook acquisition and an increase in diluted shares outstanding, partially offset by higher net interest income, a lower provision for loan losses, higher noninterest revenues and lower income taxes. The YTD decrease in net income and earnings per share was impacted by higher noninterest expenses including $7.8 million in acquisition expenses due to the Kinderhook transaction and an increase in diluted shares outstanding compared to the prior YTD period, partially offset by higher net interest income, a lower provision for loan losses, higher noninterest revenues and lower income taxes. Higher noninterest revenues for the YTD period included a $4.9 million increase in net gain on sales of investment securities and a $0.10 per diluted share detriment from interchange fee reductions due to the limitations established by the Durbin amendment of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (“Durbin Amendment”). Operating net income of $44.0 million and $128.4 million for the third quarter and September YTD, respectively, increased $1.9 million, or 4.5%, as compared to the third quarter of 2018 and increased $1.5 million, or 1.2%, compared to September YTD 2018. Operating earnings per share of $0.84 for the third quarter, was up $0.03 compared to the third quarter of 2018, while operating earnings per share of $2.45 for the first nine months of 2019, was up $0.01 compared to the first nine months of 2018. See Table 11 for Reconciliation of GAAP to Non-GAAP Measures.

As reflected in Table 1, third quarter net interest income of $91.3 million was up $5.1 million, or 5.9%, from the comparable prior year period. Net interest income for the first nine months of 2019 increased $8.8 million, or 3.4%, versus the first nine months of 2018. The quarterly and year-over-year improvement was primarily the result of an increase in interest-earning assets, due to the Kinderhook acquisition as well as from organic loan growth, and an increase in the yield on interest-earning assets, partially offset by an increase in the average rate paid on interest-bearing liabilities.

The provision for loan losses for the third quarter and September YTD decreased $0.5 million and $2.8 million as compared to the third quarter and first nine months of 2018, respectively, reflective of stable asset quality metrics.

Third quarter and year-to-date noninterest revenues were $57.1 million and $173.5 million, respectively, up $1.3 million, or 2.3%, from the third quarter of 2018 and up $3.7 million, or 2.2%, from the first nine months of 2018. The increase compared to the prior quarter was primarily a result of an increase in employee benefit services revenue, insurance services revenue, wealth management services revenue, deposit service fee revenue and electronic banking revenue, partially offset by a decrease in other banking revenues. The YTD increase was due to an increase in employee benefit services revenue, insurance services revenue and the net gain on sale of investments in the second quarter of 2019, offset by a decrease in wealth management services revenue and a decrease in banking noninterest revenue due to a $6.7 million, or $0.10 per diluted share, impact of the Durbin amendment.

Noninterest expenses of $96.9 million and $276.8 million for the third quarter and September YTD periods reflected an increase of $11.7 million, or 13.7%, from the third quarter of 2018 and an increase of $19.1 million, or 7.4%, from the first nine months of 2018. Excluding acquisition-related expenses, 2019 operating expenses were $4.8 million, or 5.6%, higher for the third quarter and $10.5 million, or 4.1%, higher for the year-to-date timeframe. The increases in noninterest expenses were driven by an increase in compensation related expenses and other expenses due in part to operating a larger franchise subsequent to the Kinderhook acquisition.

The effective income tax rates were 21.1% and 19.9% for the third quarter and YTD 2019, respectively, as compared to 21.0% and 20.9% for the comparable prior year periods. The change in effective tax rates compared to the prior year periods was due to the impact of windfall tax benefits associated with accounting for share-based transactions.

A condensed income statement is as follows:

**Table 1: Condensed Income Statements**

| (000's omitted, except per share data) | Three Months Ended September 30, 2019 | Three Months Ended September 30, 2018 | Nine Months Ended September 30, 2019 | Nine Months Ended September 30, 2018 |
|---|---|---|---|---|
| Net interest income | $91,276 | $86,198 | $266,435 | $257,668 |
| Provision for loan losses | 1,751 | 2,215 | 5,573 | 8,342 |
| Noninterest revenues | 57,094 | 55,791 | 173,496 | 169,841 |
| Noninterest expenses | 96,929 | 85,233 | 276,757 | 257,676 |
| Income before income taxes | 49,690 | 54,541 | 157,601 | 161,491 |
| Income taxes | 10,472 | 11,435 | 31,422 | 33,673 |
| Net income | $39,218 | $43,106 | $126,179 | $127,818 |
| | | | | |
| Diluted weighted average common shares outstanding | 52,382 | 52,086 | 52,301 | 51,925 |
| Diluted earnings per share | $0.75 | $0.83 | $2.41 | $2.46 |

**Net Interest Income**

Net interest income is the amount by which interest and fees on earning assets (loans, investments, and cash equivalents) exceeds the cost of funds, which consists primarily of interest paid to the Company's depositors and on borrowings. Net interest margin is the difference between the yield on earning assets and the cost of interest-bearing funds as a percentage of earning assets.

As shown in Table 2a, net interest income (with nontaxable income converted to a fully tax-equivalent basis) for the third quarter was $92.3 million, a $5.0 million, or 5.7%, increase from the same period last year. Net interest margin for the third quarter of 2019 was 3.73%, an increase of two basis points from the third quarter of 2018. The increase in net interest income and net interest margin were driven by a $473.5 million increase in average interest-earning assets, primarily related to the Kinderhook acquisition and $43.7 million in organic loan growth, and a 12 basis point increase in the average yield on earning assets from the third quarter of 2018, partially offset by a $282.0 million increase in average interest-bearing liabilities and a 14 basis point increase in the average rate paid on interest-bearing liabilities. As reflected in Table 3, the third quarter volume increase in average interest-earning assets and increase in the average yield on earning assets had a $7.7 million favorable impact on net interest income, while the volume increase in interest-bearing liabilities and the rate increase on those liabilities had a $2.7 million unfavorable impact on net interest income.

September YTD net interest income, as reflected in Table 2b, of $269.4 million, increased $8.5 million, or 3.2%, from the year-earlier period. Net interest margin for September YTD was 3.78%, an increase of six basis points from the prior year-to-date period. The September YTD increases in net interest income and net interest margin resulted from a $148.0 million increase in average interest-earning assets, reflective of the Kinderhook acquisition and $41.4 million in organic loan growth, a 15 basis point increase in the average yield on earning assets and a $30.8 million decrease in average interest-bearing liabilities from the prior year, partially offset by a 13 basis point increase in the average rate paid on interest-bearing liabilities. The increase in average interest-earning assets, increase in the average yield on earning assets and decrease in average interest-bearing liabilities had a $15.2 million favorable impact on September YTD net interest income, while the rate increase on interest-bearing liabilities had a $6.7 million unfavorable impact on net interest income.

The higher average yield on earning assets for the quarter was the result of an increase in the average yield on loans, partially offset by a decrease in the average yield on investments and interest-earning cash equivalents. For the third quarter, the average yield on loans increased by 15 basis points, while the average yield on investments and interest-earning cash equivalents decreased two basis points compared to the prior year. The 15 basis point increase in the yield on earning assets for the first nine months of 2019 was the result of an 18 basis point increase in the average yield on loans and a three basis point increase in the average yield on investments, including cash equivalents, compared to the first nine months of 2018. The increase in the loan yield was driven by an increase in market rates on loans, partially offset by a $1.8 million decrease in acquired non-impaired loan accretion. Loan prepayment fees, which are included in interest income on loans, increased $1.6 million compared to the prior YTD period.

The average rate on interest-bearing liabilities increased by 14 basis points compared to the prior year quarter as the average rate paid on interest-bearing deposits increased 18 basis points and the average rate paid on borrowings increased 10 basis points from the period year quarter. For the first nine months of 2019, the average rate on interest-bearing deposits increased 15 basis points from the comparable prior year period and the average rate on borrowings increased 20 basis points. The increase in the average cost of borrowings was primarily the result of lower cost FHLB overnight borrowings representing a lower proportion of borrowings compared to the prior year.

The third quarter average balance of investments, including cash equivalents, increased $27.6 million compared to the prior year third quarter. The cash equivalents component of average earning assets for the third quarter increased $639.0 million compared to the prior year third quarter. The YTD average balance of investments, including cash equivalents, decreased $28.8 million as compared to YTD 2018. The cash equivalents component of average earning assets for the YTD 2019 period increased $280.1 million compared to the prior year-to-date period. The increase in cash equivalents for the quarter and YTD periods was due to the sale of available-for-sale Treasury securities during the second quarter when interest rates on the short-end of the yield curve dropped precipitously, the proceeds of which are held in interest-earning cash until more attractive securities reinvestment options become available. The Company sold $590.2 million of its available-for-sale Treasury securities with a remaining maturity of less than five years, which generated realized gains of $4.9 million. Average loan balances increased $445.9 million for the quarter and $176.8 million YTD as compared to the prior year, with $402.2 million for the quarter and $135.4 million YTD as a result of the Kinderhook acquisition and the remainder due to organic loan growth.

The quarterly and YTD increases in average interest-bearing deposits of $384.6 million and $55.8 million, respectively, were a result of the Kinderhook transaction. The Kinderhook transaction was responsible for the addition of $403.2 million in interest-bearing deposits for the quarter and $135.9 million for the YTD period. The average borrowing balance, including borrowings at the Federal Home Loan Bank of New York and the Federal Home Loan Bank of Boston (collectively referred to as “FHLB”), subordinated debt held by unconsolidated subsidiary trusts, subordinated notes payable and securities sold under agreement to repurchase (“customer repurchase agreements”), decreased $102.5 million and $86.6 million for the quarter and YTD periods respectively. The decrease for the quarter and YTD periods was due primarily to a decrease in average customer repurchase agreements, a decrease in average FHLB overnight borrowings, the redemption of $25.2 million of trust preferred subordinated debt held by Community Statutory Trust III in the third quarter of 2018 and the redemption of $22.7 million of trust preferred subordinated debt held by MBVT Statutory Trust I (“MBVT I”) and the Kinderhook Capital Trust (“KCT”) in the third quarter of 2019, partially offset by $13.8 million of subordinated notes payable, $2.4 million of FHLB long-term advances and $2.1 million of subordinated debt held by an unconsolidated subsidiary trust assumed with the Kinderhook acquisition.

Tables 2a and 2b below sets forth information related to average interest-earning assets and interest-bearing liabilities and their associated yields and rates for the periods indicated. Interest income and yields are on a fully tax-equivalent basis (“FTE”) using marginal income tax rates of 24.5% and 24.4% in 2019 and 2018, respectively. Average balances are computed by totaling the daily ending balances in a period and dividing by the number of days in that period. Loan interest income and yields include amortization of deferred loan income and costs, loan prepayment and other fees and the accretion of acquired loan marks. Average loan balances include nonaccrual loans and loans held for sale.

**Table 2a: Quarterly Average Balance Sheet**

| (000's omitted except yields and rates) | Three Months Ended September 30, 2019 | | | Three Months Ended September 30, 2018 | | |
|---|---|---|---|---|---|---|
| | Average Balance | Interest | Avg. Yield/Rate Paid | Average Balance | Interest | Avg. Yield/Rate Paid |
| Interest-earning assets: | | | | | | |
| Cash equivalents | $665,862 | $3,670 | 2.19% | $26,832 | $108 | 1.60% |
| Taxable investment securities [1] | 1,990,979 | 12,192 | 2.43% | 2,574,116 | 15,313 | 2.36% |
| Nontaxable investment securities [1] | 413,437 | 3,608 | 3.46% | 441,719 | 4,081 | 3.67% |
| Loans (net of unearned discount)[2] | 6,735,776 | 80,162 | 4.72% | 6,289,868 | 72,472 | 4.57% |
| Total interest-earning assets | 9,806,054 | 99,632 | 4.03% | 9,332,535 | 91,974 | 3.91% |
| Noninterest-earning assets | 1,423,865 | | | 1,287,337 | | |
| Total assets | $11,229,919 | | | $10,619,872 | | |
| Interest-bearing liabilities: | | | | | | |
| Interest checking, savings, and money market deposits | $5,542,323 | 2,808 | 0.20% | $5,333,657 | 1,589 | 0.12% |
| Time deposits | 919,820 | 3,051 | 1.32% | 743,924 | 1,175 | 0.63% |
| Customer repurchase agreements | 179,062 | 329 | 0.73% | 216,389 | 393 | 0.72% |
| FHLB borrowings | 4,020 | 18 | 1.78% | 71,040 | 403 | 2.25% |
| Subordinated notes payable | 11,851 | 161 | 5.40% | 0 | 0 | 0.00% |
| Subordinated debt held by unconsolidated subsidiary trusts | 96,034 | 1,004 | 4.15% | 106,054 | 1,145 | 4.28% |
| Total interest-bearing liabilities | 6,753,110 | 7,371 | 0.43% | 6,471,064 | 4,705 | 0.29% |
| Noninterest-bearing liabilities: | | | | | | |
| Noninterest checking deposits | 2,458,831 | | | 2,336,778 | | |
| Other liabilities | 193,109 | | | 147,796 | | |
| Shareholders' equity | 1,824,869 | | | 1,664,234 | | |
| Total liabilities and shareholders' equity | $11,229,919 | | | $10,619,872 | | |
| Net interest earnings | | $92,261 | | | $87,269 | |
| Net interest spread | | | 3.60% | | | 3.62% |
| Net interest margin on interest-earning assets | | | 3.73% | | | 3.71% |
| Fully tax-equivalent adjustment | | $985 | | | $1,071 | |

(1) Averages for investment securities are based on historical cost basis and the yields do not give effect to changes in fair value that is reflected as a component of noninterest-earning assets, shareholders' equity, and deferred taxes.

(2) Includes nonaccrual loans. The impact of interest and fees not recognized on nonaccrual loans was immaterial.

**Table 2b: Year-to-Date Average Balance Sheet**

| (000's omitted except yields and rates) | Nine Months Ended September 30, 2019 | | | Nine Months Ended September 30, 2018 | | |
|---|---|---|---|---|---|---|
| | Average Balance | Interest | Avg. Yield/Rate Paid | Average Balance | Interest | Avg. Yield/Rate Paid |
| Interest-earning assets: | | | | | | |
| Cash equivalents | $375,818 | $6,339 | 2.26% | $95,761 | $1,188 | 1.66% |
| Taxable investment securities (1) | 2,319,994 | 43,037 | 2.48% | 2,577,807 | 46,275 | 2.40% |
| Nontaxable investment securities (1) | 404,741 | 10,879 | 3.59% | 455,816 | 12,651 | 3.71% |
| Loans (net of unearned discount)(2) | 6,436,474 | 228,408 | 4.74% | 6,259,668 | 213,481 | 4.56% |
| Total interest-earning assets | 9,537,027 | 288,663 | 4.05% | 9,389,052 | 273,595 | 3.90% |
| Noninterest-earning assets | 1,361,493 | | | 1,306,465 | | |
| Total assets | $10,898,520 | | | $10,695,517 | | |
| | | | | | | |
| Interest-bearing liabilities: | | | | | | |
| Interest checking, savings, and money market deposits | $5,436,854 | 7,825 | 0.19% | $5,438,539 | 4,353 | 0.11% |
| Time deposits | 811,346 | 6,701 | 1.10% | 753,853 | 2,924 | 0.52% |
| Customer repurchase agreements | 215,459 | 1,189 | 0.74% | 262,999 | 1,192 | 0.61% |
| FHLB borrowings | 10,990 | 208 | 2.53% | 34,179 | 530 | 2.07% |
| Subordinated notes payable | 3,994 | 161 | 5.40% | 0 | 0 | 0.00% |
| Subordinated debt held by unconsolidated subsidiary trusts | 97,297 | 3,161 | 4.34% | 117,170 | 3,645 | 4.16% |
| Total interest-bearing liabilities | 6,575,940 | 19,245 | 0.39% | 6,606,740 | 12,644 | 0.26% |
| Noninterest-bearing liabilities: | | | | | | |
| Noninterest checking deposits | 2,361,569 | | | 2,298,008 | | |
| Other liabilities | 185,456 | | | 147,208 | | |
| Shareholders' equity | 1,775,555 | | | 1,643,561 | | |
| Total liabilities and shareholders' equity | $10,898,520 | | | $10,695,517 | | |
| | | | | | | |
| Net interest earnings | | $269,418 | | | $260,951 | |
| | | | | | | |
| Net interest spread | | | 3.66% | | | 3.64% |
| Net interest margin on interest-earning assets | | | 3.78% | | | 3.72% |
| | | | | | | |
| Fully tax-equivalent adjustment | | $2,983 | | | $3,283 | |

(1) Averages for investment securities are based on historical cost basis and the yields do not give effect to changes in fair value that is reflected as a component of noninterest-earning assets, shareholders' equity, and deferred taxes.

(2) Includes nonaccrual loans. The impact of interest and fees not recognized on nonaccrual loans was immaterial.

As discussed above and disclosed in Table 3 below, the change in net interest income (fully tax-equivalent basis) may be analyzed by segregating the volume and rate components of the changes in interest income and interest expense for each underlying category.

**Table 3: Rate/Volume**

| | Three months ended September 30, 2019 versus September 30, 2018 Increase (Decrease) Due to Change in (1) | | | Nine months ended September 30, 2019 versus September 30, 2018 Increase (Decrease) Due to Change in (1) | | |
|---|---|---|---|---|---|---|
| *(000's omitted)* | Volume | Rate | Net Change | Volume | Rate | Net Change |
| Interest earned on: | | | | | | |
| Cash equivalents | $3,509 | $53 | $3,562 | $4,587 | $564 | $5,151 |
| Taxable investment securities | (3,560) | 439 | (3,121) | (4,743) | 1,505 | (3,238) |
| Nontaxable investment securities | (254) | (219) | (473) | (1,383) | (389) | (1,772) |
| Loans | 5,253 | 2,437 | 7,690 | 6,130 | 8,797 | 14,927 |
| Total interest-earning assets (2) | 4,756 | 2,902 | 7,658 | 4,360 | 10,708 | 15,068 |
| | | | | | | |
| Interest paid on: | | | | | | |
| Interest checking, savings and money market deposits | 64 | 1,155 | 1,219 | (1) | 3,473 | 3,472 |
| Time deposits | 332 | 1,544 | 1,876 | 239 | 3,538 | 3,777 |
| Customer repurchase agreements | (68) | 4 | (64) | (237) | 234 | (3) |
| FHLB borrowings | (315) | (70) | (385) | (419) | 97 | (322) |
| Subordinated notes payable | 161 | 0 | 161 | 161 | 0 | 161 |
| Subordinated debt held by unconsolidated subsidiary trusts | (106) | (35) | (141) | (640) | 156 | (484) |
| Total interest-bearing liabilities (2) | 212 | 2,454 | 2,666 | (59) | 6,660 | 6,601 |
| | | | | | | |
| Net interest earnings (2) | 4,451 | 541 | 4,992 | 4,146 | 4,321 | 8,467 |

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

(2) Changes due to volume and rate are computed from the respective changes in average balances and rates of the totals; they are not a summation of the changes of the components.

**Noninterest Revenues**

The Company's sources of noninterest revenues are of four primary types: 1) general banking services related to loans, deposits, and other core customer activities typically provided through the branch network and electronic banking channels (performed by CBNA); 2) employee benefit services (performed by BPAS and its subsidiaries); 3) wealth management services, comprised of trust services (performed by the trust unit within CBNA), investment products and services (performed by CISI) and asset management services (performed by Nottingham Advisors, Inc.); and 4) insurance products and services (performed by OneGroup NY, Inc. ("OneGroup")). Additionally, the Company has periodic transactions, most often net gains or losses from the sale of investment securities and prepayment of debt instruments.

**Table 4: Noninterest Revenues**

| (000's omitted) | Three Months Ended September 30, 2019 | Three Months Ended September 30, 2018 | Nine Months Ended September 30, 2019 | Nine Months Ended September 30, 2018 |
|---|---|---|---|---|
| Employee benefit services | $24,329 | $23,265 | $72,170 | $68,813 |
| Deposit service charges and fees | 11,322 | 11,087 | 32,435 | 32,306 |
| Electronic banking | 5,598 | 5,040 | 16,345 | 21,962 |
| Insurance services | 8,527 | 8,270 | 24,718 | 23,044 |
| Wealth management services | 6,363 | 6,168 | 19,290 | 19,370 |
| Other banking revenues | 945 | 1,536 | 3,628 | 3,942 |
| Subtotal | 57,084 | 55,366 | 168,586 | 169,437 |
| Gain on sale of investment securities, net | 0 | 0 | 4,882 | 0 |
| Unrealized gain on equity securities | 10 | 743 | 28 | 722 |
| Loss on debt extinguishment | 0 | (318) | 0 | (318) |
| Total noninterest revenues | $57,094 | $55,791 | $173,496 | $169,841 |
| | | | | |
| Noninterest revenues/operating revenues (FTE basis) [1] | 38.6% | 39.4% | 38.9% | 39.9% |

[1] For purposes of this ratio noninterest revenues exclude net realized gain on sale of investment securities, unrealized gain on equity securities, and loss on debt extinguishment. Operating revenues, a non-GAAP measure, is defined as net interest income on a fully-tax equivalent basis excluding acquired non-impaired loan accretion plus noninterest revenues excluding net gain on sale of investment securities, unrealized gain on equity securities, and loss on debt extinguishment. See Table 11 for Reconciliation of GAAP to Non-GAAP Measures.

As displayed in Table 4, noninterest revenues, excluding net gain on sale of investment securities and unrealized gain on equity securities, were $57.1 million for the third quarter of 2019 and $168.6 million for the first nine months of 2019. This represents an increase of $1.7 million, or 3.1%, for the quarter and a decrease of $0.9 million, or 0.5%, for the YTD period in comparison to the equivalent 2018 periods. The increase for the quarterly period was driven by an increase in employee benefit services revenue, wealth management services revenue, insurance services revenue, deposit service fee revenue and electronic banking revenue, partially offset by a decrease in other banking services revenue. The decrease for the YTD period was due to the impact that the decrease in debit card-related revenue due to the Durbin amendment had on electronic banking revenue, a decrease in wealth management services revenue and a decrease in other banking services revenues, partially offset by increases in employee benefit services revenue, insurance services revenue and deposit service fee revenue. In addition to noninterest revenues from recurring banking noninterest revenue and financial services revenues, the Company sold $590.2 million of its available-for-sale Treasury securities in the second quarter of 2019 resulting in a net realized gain of $4.9 million.

General recurring banking noninterest revenue of $17.9 million for the third quarter and $52.4 million for the first nine months of 2019 increased $0.2 million, or 1.1%, and decreased $5.8 million, or 10.0%, respectively, as compared to the corresponding prior year periods. The quarterly increase was primarily driven by an increase in deposit service fees and electronic banking due to an expanded customer based following the Kinderhook transaction, partially offset by a decrease in mortgage banking revenue between the periods. The YTD decrease was primarily driven by the impact of the Durbin amendment mandated debit interchange price restrictions that were effective at the beginning of the third quarter of 2018, partially offset by the impact of the Kinderhook acquisition in the third quarter of 2019.

Employee benefit services revenue increased $1.1 million, or 4.6%, and $3.4 million, or 4.9%, for the three and nine months ended September 30, 2019, respectively, as compared to the prior year periods. This growth primarily related to growth in the collective investment fund administration and the institutional trust business. Insurance services revenue was up $0.3 million, or 3.1%, and $1.7 million, or 7.3%, for the third quarter and YTD periods, respectively. Wealth management services revenue was up $0.2 million, or 3.2%, for the third quarter of 2019, but was down $0.1 million for 2019 YTD as compared to the same time period of 2018.

The ratio of noninterest revenues to operating revenues (FTE basis) was 38.6% for the quarter and 38.9% for the nine months ended September 30, 2019, respectively, versus 39.4% and 39.9% for the comparable periods of 2018. The decrease for the year-to-date period is a function of a decrease of 0.5% in adjusted noninterest revenues primarily due to the impact of the Durbin amendment mandated debit interchange price restrictions, while adjusted net interest income (FTE basis) increased 4.0%.

**Noninterest Expenses**

Table 5 below sets forth the quarterly results of the major noninterest expense categories for the current and prior year, as well as efficiency ratios (defined below), a standard measure of expense utilization effectiveness commonly used in the banking industry.

**Table 5: Noninterest Expenses**

| | Three Months Ended September 30, | | Nine Months Ended September 30, | |
|---|---|---|---|---|
| *(000's omitted)* | 2019 | 2018 | 2019 | 2018 |
| Salaries and employee benefits | $56,061 | $51,062 | $163,448 | $155,323 |
| Occupancy and equipment | 9,801 | 9,770 | 29,708 | 29,738 |
| Data processing and communications | 10,675 | 10,509 | 30,475 | 29,463 |
| Amortization of intangible assets | 3,960 | 4,427 | 11,994 | 13,780 |
| Legal and professional fees | 2,595 | 2,522 | 7,999 | 8,047 |
| Business development and marketing | 2,604 | 2,587 | 8,532 | 7,301 |
| Acquisition expenses | 6,061 | (832) | 7,789 | (769) |
| Other | 5,172 | 5,188 | 16,812 | 14,793 |
| Total noninterest expenses | $96,929 | $85,233 | $276,757 | $257,676 |
| | | | | |
| Operating expenses[(1)]/average assets | 3.07% | 3.05% | 3.15% | 3.06% |
| Efficiency ratio[(2)] | 58.8% | 58.0% | 59.2% | 57.7% |

(1) Operating expenses, a non-GAAP measure, is calculated as total noninterest expenses less acquisition expenses and amortization of intangibles. See Table 11 for Reconciliation of GAAP to Non-GAAP Measures.

(2) Efficiency ratio, a non-GAAP measure, is calculated as operating expenses as defined in [(1)] above divided by net interest income on a fully tax-equivalent basis excluding acquired non-impaired loan accretion plus noninterest revenues excluding net gain on sale of investment securities, unrealized gains and losses on equity securities, and loss on debt extinguishment. See Table 11 for Reconciliation of GAAP to Non-GAAP Measures.

As shown in Table 5, the Company recorded noninterest expenses of $96.9 million and $276.8 million for the third quarter and YTD periods of 2019, respectively, representing an increase of $11.7 million, or 13.7%, and $19.1 million, or 7.4%, from the prior year periods. Acquisition-related expenses associated with the Kinderhook acquisition of $6.1 million and $7.8 million are included in third quarter and YTD 2019 noninterest expenses, respectively. Salaries and employee benefits increased $5.0 million, or 9.8%, and $8.1 million, or 5.2%, for the third quarter and YTD periods of 2019, respectively, as compared to the corresponding periods of 2018. The increase in salaries and benefits was due primarily to an increase in average full-time equivalent employees due to the Kinderhook acquisition, annual merit-based personnel cost increases and an increase in employee benefit costs including a significant increase in employee health care costs. The remaining change to noninterest expenses can be attributed to occupancy and equipment (up slightly for the quarter and down slightly YTD), data processing and communications (up $0.2 million for the quarter and $1.0 million YTD), amortization of intangible assets (down $0.5 million for the quarter and $1.8 million YTD), legal and professional fees (up $0.1 million for the quarter and down slightly YTD), business development and marketing (up slightly for the quarter and $1.2 million YTD) and other expenses (down slightly for the quarter and up $2.0 million YTD). Included in other expenses was an increase in expense associated with the non-service related components of net periodic pension benefit (up $0.7 million for the quarter and $2.1 million YTD).

The Company's efficiency ratio (as defined in the table above) was 58.8% for the third quarter, 0.8% unfavorable to the comparable quarter of 2018. This resulted from operating expenses (as described above) increasing 6.5%, while operating revenues (as described above) increased by a lesser 5.0%. The efficiency ratio of 59.2% for the first nine months of 2019 was 1.5% unfavorable compared to the first nine months of 2018 due to 5.0% higher operating expenses (as described above), while operating revenues (as described above) increased by a lesser 2.2% including the impact of the Durbin-related reductions in interchange revenues. Current year operating expenses, excluding intangible amortization and acquisition expenses, as a percentage of average assets increased two basis points versus the prior year quarter and was nine basis points higher than the prior year-to-date period. Operating expenses (as defined above) increased 6.5% for the quarter and 5.0% for the year-to-date period, while average assets increased 5.7% for the quarter and increased 1.9% for the year-to-date period.

**Income Taxes**

The third quarter and YTD 2019 effective income tax rates were 21.1% and 19.9%, respectively, as compared to the 21.0% and 20.9% for the comparable periods of 2018. The increase in the third quarter 2019 effective income tax rate is attributable to a slight decrease in the windfall tax benefit associated with the accounting for share-based transactions. The decrease in the YTD 2019 effective income tax rate is attributable to an increase in the YTD windfall tax benefit as compared to the prior year period, combined with lower state taxes. The effective tax rate adjusted to exclude windfall tax benefits was 21.5% for both third quarter and YTD 2019, as compared to 21.5% and 22.2% for the comparable periods of 2018, respectively.

**Investment Securities**

The carrying value of investments (including unrealized gains and losses on available-for-sale securities) was $2.48 billion at the end of the third quarter, a decrease of $499.9 million from December 31, 2018 and $466.3 million lower than September 30, 2018. The book value (excluding unrealized gains and losses) of investments decreased $561.3 million from December 31, 2018 and decreased $564.4 million from September 30, 2018. During the first nine months of 2019, the Company purchased $55.3 million of government agency mortgage-backed securities with an average yield of 3.19%, $55.5 million of obligations of state and political subdivisions with an average fully tax-equivalent yield of 3.52% and $49.9 million in U.S. agency securities with an average yield of 2.49%. The Company also acquired $37.7 million of available-for-sale securities and $2.1 million of equity and other securities as part of the Kinderhook transaction. These additions were offset by $148.9 million of investment maturities, calls, and principal payments during the first nine months of 2019, and the sale of $590.2 million of available-for-sale Treasury securities with a remaining maturity of less than five years and a 2.09% yield to maturity. The sale of investment securities in the second quarter of 2019 resulted in a $4.9 million net realized gain. The effective duration of the securities portfolio was 2.5 years at the end of the third quarter of 2019, as compared to 2.7 years at year end 2018 and 2.9 years at the end of the third quarter of 2018.

The change in the carrying value of investments is also impacted by the amount of net unrealized gains or losses. At September 30, 2019, the portfolio had a $46.1 million net unrealized gain, an increase of $61.4 million from the unrealized loss at December 31, 2018 and a $98.1 million increase from the unrealized loss at September 30, 2018. These changes in the net unrealized position of the portfolio were principally driven by the movements in market interest rates.

**Table 6: Investment Securities**

| | September 30, 2019 | | December 31, 2018 | | September 30, 2018 | |
|---|---|---|---|---|---|---|
| (000's omitted) | Amortized Cost | Fair Value | Amortized Cost | Fair Value | Amortized Cost | Fair Value |
| *Available-for-Sale Portfolio:* | | | | | | |
| U.S. Treasury and agency securities | $1,482,739 | $1,506,647 | $2,036,474 | $2,023,753 | $2,039,086 | $1,998,095 |
| Obligations of state and political subdivisions | 442,942 | 458,090 | 453,640 | 459,154 | 473,048 | 475,365 |
| Government agency mortgage-backed securities | 406,329 | 411,816 | 390,234 | 382,477 | 369,970 | 358,063 |
| Corporate debt securities | 2,542 | 2,540 | 2,588 | 2,546 | 2,603 | 2,550 |
| Government agency collateralized mortgage obligations | 57,452 | 58,009 | 69,342 | 68,119 | 73,112 | 70,706 |
| Total available-for-sale portfolio | 2,392,004 | 2,437,102 | 2,952,278 | 2,936,049 | 2,957,819 | 2,904,779 |
| *Equity and other Securities:* | | | | | | |
| Equity securities, at fair value | 251 | 461 | 251 | 432 | 251 | 498 |
| Federal Home Loan Bank common stock | 6,912 | 6,912 | 8,768 | 8,768 | 6,343 | 6,343 |
| Federal Reserve Bank common stock | 31,992 | 31,992 | 30,690 | 30,690 | 30,690 | 30,690 |
| Other equity securities, at adjusted cost | 4,525 | 5,275 | 4,969 | 5,719 | 4,997 | 5,747 |
| Total equity and other securities | 43,680 | 44,640 | 44,678 | 45,609 | 42,281 | 43,278 |
| Total investments | $2,435,684 | $2,481,742 | $2,996,956 | $2,981,658 | $3,000,100 | $2,948,057 |

**Loans**

As shown in Table 7, loans ended the third quarter at $6.85 billion, up $552.3 million, or 8.8%, from one year earlier and up $572.1 million, or 9.1%, from the end of 2018. The growth during the last nine and twelve months was attributable to both organic and acquired growth, with $471.7 million of the increase attributable to the Kinderhook acquisition.

**Table 7: Loans**

| *(000's omitted)* | September 30, 2019 | | December 31, 2018 | | September 30, 2018 | |
|---|---|---|---|---|---|---|
| Business lending | $2,779,612 | 40.6% | $2,396,977 | 38.2% | $2,403,624 | 38.2% |
| Consumer mortgage | 2,405,191 | 35.1% | 2,235,408 | 35.6% | 2,220,022 | 35.2% |
| Consumer indirect | 1,091,980 | 15.9% | 1,083,207 | 17.2% | 1,098,943 | 17.4% |
| Consumer direct | 187,379 | 2.7% | 178,820 | 2.8% | 184,349 | 2.9% |
| Home equity | 389,029 | 5.7% | 386,709 | 6.2% | 393,950 | 6.3% |
| Total loans | $6,853,191 | 100.0% | $6,281,121 | 100.0% | $6,300,888 | 100.0% |

The business lending portfolio consists of general-purpose business lending to commercial and industrial customers, municipal lending, mortgages on commercial property, and dealer floor plan financing. The business lending portfolio increased $376.0 million, or 15.6%, from September 30, 2018 and increased $382.6 million from December 31, 2018, with $327.5 million of the increase from Kinderhook. The Company operates in highly competitive markets for business loans and invests in additional personnel, technology and business development resources to generate organic growth in its business lending portfolio while adhering to its goals or maintaining strong asset quality and producing profitable margins.

Consumer mortgages increased $185.2 million, or 8.3%, from one year ago and increased $169.8 million, or 7.6%, from December 31, 2018. Excluding the $120.0 million in consumer mortgages from Kinderhook, consumer mortgages increased $65.2 million, or 2.9%, from one year ago and increased $49.8 million, or 2.2%, from December 31, 2018. Consumer mortgage volume has been relatively strong over the last several years due to historically low long-term rates and comparatively stable real estate valuations in the Company's primary markets. Interest rate levels and expected duration continue to be the most significant factors in determining whether the Company chooses to retain, versus sell and service, portions of its new mortgage production. The Company is currently holding primarily all of its new consumer mortgage production due to current market conditions. Home equity loans decreased $4.9 million, or 1.2%, from one year ago and increased $2.3 million, or 0.6%, from December 31, 2018, including the $16.6 million of home equity loans acquired with the Kinderhook transaction. The Company continues to experience a low level of utilization of home equity loans due to the current level of market interest rates.

Consumer installment loans, both those originated directly in the branches (referred to as "consumer direct") and indirectly in automobile, marine, and recreational vehicle dealerships (referred to as "consumer indirect"), decreased $3.9 million, or 0.3%, from one year ago and increased $17.3 million, or 1.4%, from December 31, 2018, with $7.6 million of the increase relating to consumer direct loans acquired with the Kinderhook transaction. Although the consumer indirect loan market is highly competitive, the Company is focused on maintaining a profitable, in-market and contiguous market indirect portfolio, while continuing to pursue the expansion of its dealer network. Consumer direct loans provide attractive returns, and the Company is committed to providing competitive market offerings to its customers in this important loan category.

**Asset Quality**

Table 8 below exhibits the major components of nonperforming loans and assets and key asset quality metrics for the periods ending September 30, 2019 and 2018 and December 31, 2018.

**Table 8: Nonperforming Assets**

| (000's omitted) | September 30, 2019 | December 31, 2018 | September 30, 2018 |
|---|---|---|---|
| *Nonaccrual loans* | | | |
| Business lending | $8,547 | $8,370 | $7,046 |
| Consumer mortgage | 13,059 | 12,262 | 12,353 |
| Consumer indirect | 0 | 0 | 0 |
| Consumer direct | 54 | 0 | 0 |
| Home equity | 1,950 | 1,912 | 2,583 |
| Total nonaccrual loans | 23,610 | 22,544 | 21,982 |
| *Accruing loans 90+ days delinquent* | | | |
| Business lending | 1,186 | 179 | 355 |
| Consumer mortgage | 3,147 | 1,625 | 1,982 |
| Consumer indirect | 209 | 292 | 209 |
| Consumer direct | 43 | 52 | 20 |
| Home equity | 479 | 307 | 385 |
| Total accruing loans 90+ days delinquent | 5,064 | 2,455 | 2,951 |
| *Nonperforming loans* | | | |
| Business lending | 9,733 | 8,549 | 7,401 |
| Consumer mortgage | 16,206 | 13,887 | 14,335 |
| Consumer indirect | 209 | 292 | 209 |
| Consumer direct | 97 | 52 | 20 |
| Home equity | 2,429 | 2,219 | 2,968 |
| Total nonperforming loans | 28,674 | 24,999 | 24,933 |
| Other real estate owned (OREO) | 1,258 | 1,320 | 1,142 |
| Total nonperforming assets | $29,932 | $26,319 | $26,075 |
| | | | |
| Nonperforming loans / total loans | 0.42% | 0.40% | 0.40% |
| Nonperforming assets / total loans and other real estate | 0.44% | 0.42% | 0.41% |
| Delinquent loans (30 days old to nonaccruing) to total loans | 0.85% | 1.00% | 0.93% |
| Net charge-offs to average loans outstanding (quarterly) | 0.10% | 0.21% | 0.11% |
| Legacy net charge-offs to average legacy loans outstanding (quarterly) | 0.12% | 0.24% | 0.12% |
| Provision for loan losses to net charge-offs (quarterly) | 107% | 75% | 130% |
| Legacy provision for loan losses to net charge-offs (quarterly) [(1)] | 51% | 76% | 138% |

(1) Legacy loans exclude loans acquired after January 1, 2009. These ratios are included for comparative purposes to prior periods.

The Company's asset quality profile in the third quarter of 2019 continued to illustrate the long-term effectiveness of the Company's disciplined credit risk management and underwriting standards. As displayed in Table 8, nonperforming assets at September 30, 2019 were $29.9 million, a $3.6 million increase versus the level at the end of 2018 and a $3.9 million increase as compared to one year earlier. Nonperforming loans increased $3.7 million from year-end 2018 and increased $3.7 million from September 30, 2018. Other real estate owned ("OREO") at September 30, 2019 of $1.3 million decreased $0.1 million from December 31, 2018 and increased $0.1 million from September 30, 2018. At September 30, 2019, OREO consisted of 17 residential properties with a total value of $1.0 million and two commercial properties with a value of $0.3 million. This compares to 18 residential properties with a total value of $1.3 million at December 31, 2018, and 23 residential properties with a total value of $1.1 million at September 30, 2018. Nonperforming loans were 0.42% of total loans outstanding at the end of the third quarter, two basis points above the level at December 31, 2018 and September 30, 2018.

Approximately 57% of nonperforming loans at September 30, 2019 are related to the consumer mortgage portfolio. Collateral values of residential properties within the Company's market area have generally remained stable over the past several years. Additionally, economic conditions, including lower unemployment levels, have positively impacted consumers and resulted in relatively stable nonperforming mortgage ratios in recent years, with only a modest increase in the ratio for the third quarter of 2019 compared to the prior year third quarter. Approximately 34% of the nonperforming loans at September 30, 2019 were related to the business lending portfolio, which is comprised of business loans broadly diversified by industry type. The remaining 9% of nonperforming loans relate to consumer installment and home equity loans, with home equity non-performing loan levels being driven by the same factors identified for consumer mortgages. The allowance for loan losses to nonperforming loans ratio, a general measure of coverage adequacy, was 172% at the end of the third quarter, as compared to 197% at year-end 2018 and 201% at September 30, 2018.

The Company's senior management, special asset officers and lenders review all delinquent and nonaccrual loans and OREO regularly in order to identify deteriorating situations, monitor known problem credits and discuss any needed changes to collection efforts, if warranted. Based on the group's consensus, a relationship may be assigned a special assets officer or other senior lending officer to review the loan, meet with the borrowers, assess the collateral and recommend an action plan. This plan could include foreclosure, restructuring loans, issuing demand letters or other actions. The Company's larger criticized credits are also reviewed on a quarterly basis by senior credit administration management, special assets officers and commercial lending management to monitor their status and discuss credit management plans. Commercial lending management reviews the criticized business loan portfolio on a monthly basis.

Delinquent loans (30 days past due through non-accruing) as a percent of total loans was 0.85% at the end of the third quarter, 15 basis points below the 1.00% at year-end 2018 and eight basis points below the 0.93% at September 30, 2018. The business lending delinquency ratio at the end of the third quarter was 15 basis points below the level at December 31, 2018 and 12 basis points below the level at September 30, 2018. The delinquency ratios for the consumer indirect and consumer direct loan portfolios decreased as compared to the levels at December 31, 2018 and September 30, 2018. The delinquency ratio for the consumer mortgage loan portfolio decreased as compared to the level at December 31, 2018, but was slightly higher than the delinquency ratio at September 30, 2018. The delinquency ratio for the home equity portfolio increased as compared to December 31, 2018, while the ratio was below the level one year ago. The Company's success at keeping the nonperforming and delinquency ratios at favorable levels has been the result of its continued focus on maintaining strict underwriting standards, as well as the effective utilization of its collection and recovery capabilities.

**Table 9: Allowance for Loan Losses Activity**

| (000's omitted) | Three Months Ended September 30, 2019 | Three Months Ended September 30, 2018 | Nine Months Ended September 30, 2019 | Nine Months Ended September 30, 2018 |
|---|---|---|---|---|
| Allowance for loan losses at beginning of period | $49,310 | $49,618 | $49,284 | $47,583 |
| *Charge-offs:* | | | | |
| Business lending | 305 | 73 | 1,774 | 2,368 |
| Consumer mortgage | 200 | 144 | 1,040 | 588 |
| Consumer indirect | 2,224 | 2,364 | 5,529 | 6,031 |
| Consumer direct | 456 | 465 | 1,436 | 1,324 |
| Home equity | 45 | 221 | 223 | 325 |
| Total charge-offs | 3,230 | 3,267 | 10,002 | 10,636 |
| *Recoveries:* | | | | |
| Business lending | 290 | 93 | 593 | 404 |
| Consumer mortgage | 8 | 46 | 44 | 109 |
| Consumer indirect | 1,095 | 1,190 | 3,296 | 3,688 |
| Consumer direct | 167 | 223 | 567 | 612 |
| Home equity | 32 | 15 | 68 | 31 |
| Total recoveries | 1,592 | 1,567 | 4,568 | 4,844 |
| Net charge-offs | 1,638 | 1,700 | 5,434 | 5,792 |
| Provision for loans losses | 1,751 | 2,215 | 5,573 | 8,342 |
| Allowance for loan losses at end of period | $49,423 | $50,133 | $49,423 | $50,133 |
| Allowance for loan losses / total loans | 0.72% | 0.80% | 0.72% | 0.80% |
| Allowance for legacy loan losses / total legacy loans (1) | 0.89% | 0.96% | 0.89% | 0.96% |
| Allowance for loan losses / nonperforming loans | 172% | 201% | 172% | 201% |
| Allowance for legacy loan losses / legacy nonperforming loans (1) | 231% | 274% | 231% | 274% |
| Net charge-offs (annualized) to average loans outstanding: | | | | |
| Business lending | 0.00% | 0.00% | 0.06% | 0.11% |
| Consumer mortgage | 0.03% | 0.02% | 0.06% | 0.03% |
| Consumer indirect | 0.41% | 0.43% | 0.28% | 0.30% |
| Consumer direct | 0.59% | 0.50% | 0.63% | 0.51% |
| Home equity | 0.01% | 0.21% | 0.05% | 0.10% |
| Total loans | 0.10% | 0.11% | 0.11% | 0.12% |

(1) Legacy loans exclude loans acquired after January 1, 2009. These ratios are included for comparative purposes to prior periods.

As displayed in Table 9, net charge-offs during the third quarter of 2019 were $1.6 million, $0.1 million lower than the third quarter of 2018. Net charge-offs for the nine months ended September 30, 2019 were $5.4 million, a $0.4 million decrease from the first nine months of 2018. The consumer mortgage and consumer direct portfolios experienced higher levels of net charge-offs through the first nine months of 2019, as compared to the first nine months of 2018, while the business lending, home equity and consumer indirect portfolios experienced lower net charge-offs than the prior year-to-date period. The annualized net charge-off ratio (net charge-offs as a percentage of average loans outstanding) for the third quarter of 2019 was 0.10%, one basis point lower than the third quarter of 2018. Net charge-off ratios for the third quarter of 2019 for the business lending, consumer mortgage, consumer direct and home equity portfolios were below the Company's average for the trailing eight quarters. Due to the highly seasonal nature of the net charge-off ratio for the consumer indirect portfolio it is compared to like quarters in previous periods, and it was below the Company's average for the third quarters of the previous two years. The September YTD annualized net charge-off ratio of 0.11% for total loans was one basis point lower than the equivalent prior year period.

The provision for loan losses was $1.8 million in the third quarter, with $0.8 million of provision related to legacy loans and $1.0 million of provision related to acquired loans. The third quarter provision was $0.5 million lower than the equivalent prior year period. The third quarter 2019 loan loss provision was $0.1 million more than the level of net charge-offs for the quarter. The allowance for loan losses of $49.4 million as of September 30, 2019 decreased $0.7 million from the level one year ago. Stable asset quality metrics have resulted in an allowance for loan losses to total loans ratio of 0.72% at September 30, 2019, eight basis points lower than the level at September 30, 2018 and six basis points lower than the level at December 31, 2018.

As of September 30, 2019, the purchase discount related to the $1.56 billion of remaining non-impaired loan balances acquired from the National Union Bank of Kinderhook, Merchants Bank, Oneida Savings Bank, HSBC Bank USA, N.A., First Niagara Bank, N.A., and Wilber National Bank was approximately $21.8 million, or 1.4% of that portfolio, with $2.3 million included in the allowance for loan losses for acquired loans where the carrying value exceeded the estimated net recoverable value.

**Deposits**

As shown in Table 10, average deposits of $8.92 billion in the third quarter were $506.6 million, or 6.0%, higher than the third quarter of 2018, and increased $564.5 million, or 6.8%, from the fourth quarter of last year, with $482.8 million of the increase from the third quarter of 2018 and the fourth quarter of last year relating to the Kinderhook acquisition. The mix of average deposit balances in the third quarter is largely consistent with the prior year quarter and the fourth quarter of 2018. Core deposits (noninterest checking, interest checking, savings and money markets) represent approximately 90% of the Company's deposit funding base, while non-core time deposits represent 10% of total average deposits. The quarterly average cost of deposits was 0.26% for the third quarter of 2019, compared to 0.13% in the third quarter of 2018, reflective of the general increase in rates in the deposit market and inclusion of acquired Kinderhook deposit liabilities between the periods. The Company continues to focus heavily on growing its core deposit relationships through its proactive marketing efforts, competitive product offerings and high quality customer service.

Average nonpublic fund deposits for the third quarter of 2019 increased $601.7 million, or 8.1%, versus the fourth quarter of 2018 and increased $500.4 million, or 6.7%, versus the year-earlier period, with $448.6 million of the increase over the fourth quarter and year-earlier periods attributable to the Kinderhook acquisition. Average public fund deposits for the third quarter decreased $37.2 million, or 3.8%, from the fourth quarter of 2018 and increased $6.2 million, or 0.7%, from the third quarter of 2018. The Kinderhook acquisition was responsible for the addition of $34.2 million of average public fund deposits in the third quarter of 2019. Public fund deposits as a percentage of total deposits decreased from 11.0% in the third quarter of 2018 to 10.5% in the third quarter of 2019.

**Table 10: Quarterly Average Deposits**

| *(000's omitted)* | September 30, 2019 | December 31, 2018 | September 30, 2018 |
|---|---|---|---|
| Noninterest checking deposits | $2,458,831 | $2,317,042 | $2,336,778 |
| Interest checking deposits | 2,075,009 | 1,880,610 | 1,890,900 |
| Savings deposits | 1,540,896 | 1,450,707 | 1,464,272 |
| Money market deposits | 1,926,418 | 1,966,279 | 1,978,485 |
| Time deposits | 919,820 | 741,794 | 743,924 |
| Total deposits | $8,920,974 | $8,356,432 | $8,414,359 |
| | | | |
| Nonpublic fund deposits | $7,988,718 | $7,386,943 | $7,488,333 |
| Public fund deposits | 932,256 | 969,489 | 926,026 |
| Total deposits | $8,920,974 | $8,356,432 | $8,414,359 |

**Borrowings**

Securities sold under agreement to repurchase, also referred to as customer repurchase agreements, represent collateralized municipal and commercial customer accounts that price and operate similar to a deposit instrument. Customer repurchase agreements were $233.3 million at the end of the third quarter of 2019, a decrease of $26.0 million from December 31, 2018 and $41.2 million below September 30, 2018.

Borrowings, excluding customer repurchase agreements, at the end of the third quarter of 2019 totaled $95.5 million. This was $58.9 million, or 38.1%, lower than borrowings at December 31, 2018 and $4.5 million, or 4.5%, below the end of the third quarter of 2018. The decrease from the prior year third quarter was primarily due to the $22.7 million redemption of trust preferred subordinated debt held by MBVT I and KCT in the third quarter of 2019, partially offset by $13.8 million in subordinated notes payable, $2.4 million of FHLB long-term advances and $2.1 million of trust preferred subordinated debt assumed in the third quarter of 2019 as part of the Kinderhook acquisition. The trust preferred debt held by MBVT I was assumed in the second quarter of 2017 as part of the Merchants Bancshares acquisition, and the trust preferred debt held by KCT was acquired in third quarter of 2019 as part of the Kinderhook acquisition. The decrease from the fourth quarter of 2018 reflected the impact of the aforementioned redemptions of trust preferred subordinated debt in the third quarter of 2019 and a $54.4 million decrease in FHLB overnight borrowings, partially offset by the subordinated notes, FHLB long-term advances and trust preferred subordinated debt assumed as part of the Kinderhook acquisition.

**Shareholders' Equity**

Total shareholders' equity was $1.84 billion at the end of the third quarter. This was up $126.6 million from the balance at December 31, 2018. During the first nine months of 2019, the Company recorded net income of $126.2 million, issued $6.7 million from treasury stock to the Company's benefit plans, issued $2.5 million of shares under the long-term incentive stock plan, recorded $4.0 million from long-term incentive stock options earned and other comprehensive income increased $47.7 million. These amounts were partially offset by dividends declared of $60.5 million. The change in other comprehensive income was comprised of a $46.3 million increase in the after-tax market value adjustment on the available-for-sale investment portfolio and a positive $1.4 million adjustment to the funded status of the Company's retirement plans. Over the past 12 months, total shareholders' equity increased by $172.1 million, as net income, the issuance of common stock in association with the Company's stock and benefit plans and an increase in the market value adjustment on investments, more than offset dividends declared and the change in the funded status of the Company's defined benefit pension and other postretirement plans.

The Company's Tier 1 leverage ratio, a primary measure of regulatory capital for which 5% is the requirement to be "well-capitalized", was 10.76% at the end of the third quarter, down 32 basis points from year-end 2018 and four basis points above its level one year earlier. The decrease in the Tier 1 leverage ratio in comparison to December 31, 2018 was primarily due to an increase in average assets, excluding intangibles and the market value adjustment on investments, of 5.3% primarily due to the Kinderhook acquisition, while ending shareholders' equity, excluding intangibles and other comprehensive income items, increased 2.3%, primarily from net earnings retention. The Tier 1 leverage ratio increased compared to the prior year's third quarter as shareholders' equity, excluding intangibles and other comprehensive income, increased 5.4% primarily due to earnings retention, while average assets excluding intangibles and the market value adjustment, increased 5.1%. The net tangible equity-to-assets ratio (a non-GAAP measure) of 9.68% decreased 0.88% from December 31, 2018 due primarily to the assets added in the Kinderhook acquisition, and increased 0.55% versus September 30, 2018 (See Table 11 for Reconciliation of Quarterly GAAP to Non-GAAP Measures). The increase in the net tangible equity-to-assets ratio over the past 12 months was due to a proportionally larger increase in tangible equity levels than the increase in tangible assets, primarily driven by net earnings retention, as well as the increase in the market value adjustment on available-for-sale securities.

The dividend payout ratio (dividends declared divided by net income) for the first nine months of 2019 was 47.9%, compared to 42.4% for the nine months ended September 30, 2018. Dividends declared for the first nine months of 2019 increased 11.6% compared to the first nine months of 2018, as the Company's quarterly dividend per share was raised from $0.34 to $0.38 in August 2018 and was raised from $0.38 to $0.41 in August 2019, while net income decreased 1.3% over the equivalent year-to-date period primarily due to the impact of the Durbin amendment and the acquisition expenses related to the Kinderhook acquisition. The 2019 dividend increase marked the Company's 27th consecutive year of increased dividend payouts to common shareholders. Additionally, the number of common shares outstanding increased 1.0% over the last twelve months.

**Liquidity**

Liquidity risk is a measure of the Company's ability to raise cash when needed at a reasonable cost and minimize any loss. The Bank maintains appropriate liquidity levels in both normal operating environments as well as stressed environments. The Company must be capable of meeting all obligations to its customers at any time and, therefore, the active management of its liquidity position remains an important management objective. The Bank has appointed the Asset Liability Committee ("ALCO") to manage liquidity risk using policy guidelines and limits on indicators of potential liquidity risk. The indicators are monitored using a scorecard with three risk level limits. These risk indicators measure core liquidity and funding needs, capital at risk and change in available funding sources. The risk indicators are monitored using such statistics as the core basic surplus ratio, unencumbered securities to average assets, free loan collateral to average assets, loans to deposits, deposits to total funding and borrowings to total funding ratios.

Given the uncertain nature of the Company's customers' demands, as well as the Company's desire to take advantage of earnings enhancement opportunities, the Company must have adequate sources of on and off-balance sheet funds available that can be utilized in time of need. Accordingly, in addition to the liquidity provided by balance sheet cash flows, liquidity must be supplemented with additional sources such as credit lines from correspondent banks and borrowings from the FHLB and the Federal Reserve Bank of New York ("Federal Reserve"). Other funding alternatives may also be appropriate from time to time, including wholesale and retail repurchase agreements, large certificates of deposit and the brokered CD market. The primary source of non-deposit funds is FHLB overnight advances, of which there were no outstanding borrowings at September 30, 2019.

The Bank's primary sources of liquidity are its liquid assets, as well as unencumbered loans and securities that can be used to collateralize additional funding. At September 30, 2019, the Bank had $1.01 billion of cash and cash equivalents of which $781.7 million are interest-earning deposits held at the Federal Reserve, FHLB and other correspondent banks. The Bank also had $1.8 billion in unused FHLB borrowing capacity based on the Company's quarter-end collateral levels. Additionally, the Company has $939.3 million of unencumbered securities that could be pledged at the FHLB or Federal Reserve to obtain additional funding. There is $25.0 million available in unsecured lines of credit with other correspondent banks.

The Company's primary approach to measuring short-term liquidity is known as the Basic Surplus/Deficit model. It is used to calculate liquidity over two time periods: first, the amount of cash that could be made available within 30 days (calculated as liquid assets less short-term liabilities as a percentage of average assets); and second, a projection of subsequent cash availability over an additional 60 days. As of September 30, 2019, this ratio was 13.8% for 30-days and 13.8% for 90-days, excluding the Company's capacity to borrow additional funds from the FHLB and other sources. This is considered to be a sufficient amount of liquidity based on the Company's internal policy requirement of 7.5%.

A sources and uses statement is used by the Company to measure intermediate liquidity risk over the next twelve months. As of September 30, 2019, there is more than enough liquidity available during the next year to cover projected cash outflows. In addition, stress tests on the cash flows are performed in various scenarios ranging from high probability events with a low impact on the liquidity position to low probability events with a high impact on the liquidity position. The results of the stress tests as of September 30, 2019 indicate the Bank has sufficient sources of funds for the next year in all simulated stressed scenarios.

To measure longer-term liquidity, a baseline projection of loan and deposit growth for five years is made to reflect how liquidity levels could change over time. This five-year measure reflects ample liquidity for loan and other asset growth over the next five years.

Though remote, the possibility of a funding crisis exists at all financial institutions. Accordingly, management has addressed this issue by formulating a Liquidity Contingency Plan, which has been reviewed and approved by both the Company's Board of Directors (the "Board") and the Company's ALCO. The plan addresses the actions that the Company would take in response to both a short-term and long-term funding crisis.

A short-term funding crisis would most likely result from a shock to the financial system, either internal or external, which disrupts orderly short-term funding operations. Such a crisis would likely be temporary in nature and would not involve a change in credit ratings. A long-term funding crisis would most likely be the result of drastic credit deterioration at the Company. Management believes that both potential circumstances have been fully addressed through detailed action plans and the establishment of trigger points for monitoring such events.

**Forward-Looking Statements**

This document contains comments or information that constitute forward-looking statements (within the meaning of the Private Securities Litigation Reform Act of 1995), which involve significant risks and uncertainties. Forward-looking statements often use words such as "anticipate," "could," "target," "expect," "estimate," "intend," "plan," "goal," "forecast, " "believe," or other words of similar meaning. Actual results may differ materially from the results discussed in the forward-looking statements. Moreover, the Company's plans, objectives and intentions are subject to change based on various factors (some of which are beyond the Company's control). Factors that could cause actual results to differ from those discussed in the forward-looking statements include: (1) risks related to credit quality, interest rate sensitivity and liquidity; (2) the strength of the U.S. economy in general and the strength of the local economies where the Company conducts its business; (3) the effect of, and changes in, monetary and fiscal policies and laws, including interest rate policies of the Board of Governors of the Federal Reserve System; (4) inflation, interest rate, market and monetary fluctuations; (5) the timely development of new products and services and customer perception of the overall value thereof (including features, pricing and quality) compared to competing products and services; (6) changes in consumer spending, borrowing and savings habits; (7) technological changes and implementation and financial risks associated with transitioning to new technology-based systems involving large multi-year contracts; (8) the ability of the Company to maintain the security of its financial, accounting, technology, data processing and other operating systems and facilities; (9) effectiveness of the Company's risk management processes and procedures, reliance on models which may be inaccurate or misinterpreted, the Company's ability to manage its credit or interest rate risk, the sufficiency of its allowance for loan losses and the accuracy of the assumptions or estimates used in preparing the Company's financial statements and disclosures; (10) failure of third parties to provide various services that are important to the Company's operations; (11) any acquisitions or mergers that might be considered or consummated by the Company and the costs and factors associated therewith, including differences in the actual financial results of the acquisition or merger compared to expectations and the realization of anticipated cost savings and revenue enhancements; (12) the ability to maintain and increase market share and control expenses; (13) the nature, timing and effect of changes in banking regulations or other regulatory or legislative requirements affecting the respective businesses of the Company and its subsidiaries, including changes in laws and regulations concerning taxes, accounting, banking, risk management, securities and other aspects of the financial services industry, specifically the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010; (14) changes in the Company's organization, compensation and benefit plans and in the availability of, and compensation levels for, employees in its geographic markets; (15) the outcome of pending or future litigation and government proceedings; (16) other risk factors outlined in the Company's filings with the SEC from time to time; and (17) the success of the Company at managing the risks of the foregoing.

The foregoing list of important factors is not all-inclusive. Such forward-looking statements speak only as of the date on which they are made and the Company does not undertake any obligation to update any forward-looking statement, whether written or oral, to reflect events or circumstances after the date on which such statement is made. If the Company does update or correct one or more forward-looking statements, investors and others should not conclude that the Company will make additional updates or corrections with respect thereto or with respect to other forward-looking statements.

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**Reconciliation of GAAP to Non-GAAP Measures**

**Table 11: GAAP to Non-GAAP Reconciliations**

| | Three Months Ended September 30, | | Nine Months Ended September 30, | |
|---|---|---|---|---|
| (000's omitted) | 2019 | 2018 | 2019 | 2018 |
| **Income statement data** | | | | |
| **Net income** | | | | |
| Net income (GAAP) | $39,218 | $43,106 | $126,179 | $127,818 |
| Acquisition expenses | 6,061 | (832) | 7,789 | (769) |
| Tax effect of acquisition expenses | (1,277) | 174 | (1,618) | 163 |
| Subtotal (non-GAAP) | 44,002 | 42,448 | 132,350 | 127,212 |
| Gain on sales of investment securities, net | 0 | 0 | (4,882) | 0 |
| Tax effect of gain on sales of investment securities, net | 0 | 0 | 988 | 0 |
| Subtotal (non-GAAP) | 44,002 | 42,448 | 128,456 | 127,212 |
| Unrealized gain on equity securities | (10) | (743) | (28) | (722) |
| Tax effect of unrealized gain on equity securities | 2 | 156 | 5 | 152 |
| Subtotal (non-GAAP) | 43,994 | 41,861 | 128,433 | 126,642 |
| Loss on debt extinguishment | 0 | 318 | 0 | 318 |
| Tax effect of loss on debt extinguishment | 0 | (67) | 0 | (67) |
| Operating net income (non-GAAP) | 43,994 | 42,112 | 128,433 | 126,893 |
| Amortization of intangibles | 3,960 | 4,427 | 11,994 | 13,780 |
| Tax effect of amortization of intangibles | (835) | (928) | (2,390) | (2,883) |
| Subtotal (non-GAAP) | 47,119 | 45,611 | 138,037 | 137,790 |
| Acquired non-impaired loan accretion | (1,637) | (1,980) | (4,269) | (6,083) |
| Tax effect of acquired non-impaired loan accretion | 345 | 415 | 854 | 1,271 |
| Adjusted net income (non-GAAP) | $45,827 | $44,046 | $134,622 | $132,978 |
| | | | | |
| **Return on average assets** | | | | |
| Adjusted net income (non-GAAP) | $45,827 | $44,046 | $134,622 | $132,978 |
| Average total assets | 11,229,919 | 10,619,872 | 10,898,520 | 10,695,517 |
| Adjusted return on average assets (non-GAAP) | 1.62% | 1.65% | 1.65% | 1.66% |
| | | | | |
| **Return on average equity** | | | | |
| Adjusted net income (non-GAAP) | $45,827 | $44,046 | $134,622 | $132,978 |
| Average total equity | 1,824,869 | 1,664,234 | 1,775,555 | 1,643,561 |
| Adjusted return on average equity (non-GAAP) | 9.96% | 10.50% | 10.14% | 10.82% |
| | | | | |
| **Earnings per common share** | | | | |
| Diluted earnings per share (GAAP) | $0.75 | $0.83 | $2.41 | $2.46 |
| Acquisition expenses | 0.12 | (0.02) | 0.15 | (0.02) |
| Tax effect of acquisition expenses | (0.03) | 0.00 | (0.03) | 0.00 |
| Subtotal (non-GAAP) | 0.84 | 0.81 | 2.53 | 2.44 |
| Gain on sales of investment securities, net | 0.00 | 0.00 | (0.10) | 0.00 |
| Tax effect of gain on sales of investment securities, net | 0.00 | 0.00 | 0.02 | 0.00 |
| Subtotal (non-GAAP) | 0.84 | 0.81 | 2.45 | 2.44 |
| Unrealized gain on equity securities | 0.00 | (0.01) | 0.00 | (0.01) |
| Tax effect of unrealized gain on equity securities | 0.00 | 0.00 | 0.00 | 0.00 |
| Subtotal (non-GAAP) | 0.84 | 0.80 | 2.45 | 2.43 |
| Loss on debt extinguishment | 0.00 | 0.01 | 0.00 | 0.01 |
| Tax effect of loss on debt extinguishment | 0.00 | 0.00 | 0.00 | 0.00 |
| Operating earnings per share (non-GAAP) | 0.84 | 0.81 | 2.45 | 2.44 |
| Amortization of intangibles | 0.08 | 0.08 | 0.23 | 0.27 |
| Tax effect of amortization of intangibles | (0.02) | (0.02) | (0.05) | (0.06) |
| Subtotal (non-GAAP) | 0.90 | 0.87 | 2.63 | 2.65 |
| Acquired non-impaired loan accretion | (0.03) | (0.04) | (0.08) | (0.12) |
| Tax effect of acquired non-impaired loan accretion | 0.01 | 0.01 | 0.02 | 0.02 |
| Diluted adjusted net earnings per share (non-GAAP) | $0.88 | $0.84 | $2.57 | $2.55 |

| (000's omitted) | Three Months Ended September 30, 2019 | Three Months Ended September 30, 2018 | Nine Months Ended September 30, 2019 | Nine Months Ended September 30, 2018 |
|---|---|---|---|---|
| **Noninterest operating expenses** | | | | |
| Noninterest expenses (GAAP) | $96,929 | $85,233 | $276,757 | $257,676 |
| Amortization of intangibles | (3,960) | (4,427) | (11,994) | (13,780) |
| Acquisition expenses | (6,061) | 832 | (7,789) | 769 |
| Total operating expenses (non-GAAP) | $86,908 | $81,638 | $256,974 | $244,665 |
| | | | | |
| **Efficiency ratio** | | | | |
| Operating expenses (non-GAAP) - numerator | $86,908 | $81,638 | $256,974 | $244,665 |
| Fully tax-equivalent net interest income | 92,261 | 87,269 | 269,418 | 260,951 |
| Noninterest revenues | 57,094 | 55,791 | 173,496 | 169,841 |
| Acquired non-impaired loan accretion | (1,637) | (1,980) | (4,269) | (6,083) |
| Gain on sales of investment securities, net | 0 | 0 | (4,882) | 0 |
| Unrealized gain on equity securities | (10) | (743) | (28) | (722) |
| Loss on debt extinguishment | 0 | 318 | 0 | 318 |
| Operating revenues (non-GAAP) - denominator | $147,708 | $140,655 | $433,735 | $424,305 |
| Efficiency ratio (non-GAAP) | 58.8% | 58.0% | 59.2% | 57.7% |

| (000's omitted) | September 30, 2019 | December 31, 2018 | September 30, 2018 |
|---|---|---|---|
| **Balance sheet data – at end of quarter** | | | |
| **Total assets** | | | |
| Total assets (GAAP) | $11,597,297 | $10,607,295 | $10,659,567 |
| Intangible assets | (840,685) | (807,349) | (811,700) |
| Deferred taxes on intangible assets | 46,048 | 46,370 | 46,882 |
| Total tangible assets (non-GAAP) | $10,802,660 | $9,846,316 | $9,894,749 |
| | | | |
| **Total common equity** | | | |
| Shareholders' Equity (GAAP) | 1,840,421 | 1,713,783 | $1,668,345 |
| Intangible assets | (840,685) | (807,349) | (811,700) |
| Deferred taxes on intangible assets | 46,048 | 46,370 | 46,882 |
| Total tangible common equity (non-GAAP) | $1,045,784 | $952,804 | $903,527 |
| | | | |
| **Net tangible equity-to-assets ratio at quarter end** | | | |
| Total tangible common equity (non-GAAP) - numerator | $1,045,784 | $952,804 | $903,527 |
| Total tangible assets (non-GAAP) - denominator | $10,802,660 | $9,846,316 | $9,894,749 |
| Net tangible equity-to-assets ratio at quarter end (non-GAAP) | 9.68% | 9.68% | 9.13% |

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

Market risk is the risk of loss in a financial instrument arising from adverse changes in market rates, prices or credit risk. Credit risk associated with the Company’s loan portfolio has been previously discussed in the asset quality section of the MD&A. Management believes that the tax risk of the Company’s municipal investments associated with potential future changes in statutory, judicial and regulatory actions is minimal. Treasury, agency, mortgage-backed and CMO securities issued by government agencies comprise 80% of the total portfolio and are currently rated AAA by Moody’s Investor Services and AA+ by Standard & Poor’s. Municipal and corporate bonds account for 18% of the total portfolio, of which, 98% carry a minimum rating of A-. The remaining 2% of the portfolio is comprised of other investment grade securities. The Company does not have material foreign currency exchange rate risk exposure. Therefore, almost all the market risk in the investment portfolio is related to interest rates.

The ongoing monitoring and management of both interest rate risk and liquidity, in the short and long term time horizons is an important component of the Company's asset/liability management process, which is governed by limits established in the policies reviewed and approved annually by the Company’s Board. The Board delegates responsibility for carrying out the policies to the ALCO, which meets each month. The committee is made up of the Company's senior management as well as regional and line-of-business managers who oversee specific earning asset classes and various funding sources. As the Company does not believe it is possible to reliably predict future interest rate movements, it has maintained an appropriate process and set of measurement tools, which enables it to identify and quantify sources of interest rate risk in varying rate environments. The primary tool used by the Company in managing interest rate risk is income simulation.

While a wide variety of strategic balance sheet and treasury yield curve scenarios are tested on an ongoing basis, the following reflects the Company's estimated net interest income sensitivity over the subsequent twelve months based on:

- Asset and liability levels using September 30, 2019 as a starting point.

- There are assumed to be conservative levels of balance sheet growth, low-to-mid single digit growth in loans and deposits, while using the cash flows from investment contractual maturities and prepayments to repay short-term capital market borrowings or reinvest into securities or cash equivalents.

- The prime rate and federal funds rates are assumed to move over a 12-month period while moving the long end of the treasury curve to spreads over the three month treasury that are more consistent with historical norms based on the last three years (normalized yield curve). Deposit rates are assumed to move in a manner that reflects the historical relationship between deposit rate movement and changes in the federal funds rate.

- Cash flows are based on contractual maturity, optionality, and amortization schedules along with applicable prepayments derived from internal historical data and external sources.

**Net Interest Income Sensitivity Model**

| Change in interest rates | Calculated annualized increase (decrease) in projected net interest income at September 30, 2019 (000’s omitted) | |
|---|---|---|
| +200 basis points | $ | 7,834 |
| +100 basis points | $ | 5,427 |
| -100 basis points | $ | (2,963) |
| -175 basis points | $ | (7,499) |

The short term modeled net interest income (NII) increases in the rising rate environments largely due to assumed higher rates on new loans, including variable and adjustable rate loans. These increases are partially offset by anticipated higher deposit costs. Over the longer time period, the growth in NII continues to improve in both rising rate environments as lower yielding assets mature and are replaced at higher rates.

In the falling rate environments, the Bank shows interest rate risk exposure to lower short term rates. During the first twelve months, net interest income declines largely due to lower assumed rates on new loans, including adjustable and variable rate assets. Modestly lower funding costs associated with deposits and borrowings only partially offset the decrease in interest income.

The analysis does not represent a Company forecast and should not be relied upon as being indicative of expected operating results. These hypothetical estimates are based upon numerous assumptions: the nature and timing of interest rate levels (including yield curve shape), prepayments on loans and securities, deposit decay rates, pricing decisions on loans and deposits, reinvestment/replacement of asset and liability cash flows, and other factors. While the assumptions are developed based upon reasonable economic and local market conditions, the Company cannot make any assurances as to the predictive nature of these assumptions, including how customer preferences or competitor influences might change. Furthermore, the sensitivity analysis does not reflect actions that the ALCO might take in responding to or anticipating changes in interest rates.

**Item 4. Controls and Procedures**

*Evaluation of Disclosure Controls and Procedures*
The Company maintains disclosure controls and procedures, as defined in Rule 13a -15(e) and 15d – 15(e) under the Securities Exchange Act of 1934 as amended (the "Exchange Act"), designed to ensure information required to be disclosed by the Company in the reports that it files or submits under the Exchange Act is: (i) recorded, processed, summarized, and reported within the time periods specified in the SEC rules and forms, and (ii) accumulated and communicated to management, including the principal executive and principal financial officers, as appropriate, to allow timely decisions regarding required disclosure. Based on management's evaluation of the effectiveness of the Company's disclosure controls and procedures, with the participation of the Chief Executive Officer and the Chief Financial Officer, it has concluded that, as of the end of the period covered by this Quarterly Report on Form 10-Q, these disclosure controls and procedures were effective as of September 30, 2019.

*Changes in Internal Control over Financial Reporting*
The Company regularly assesses the adequacy of its internal controls over financial reporting. There have been no changes in the Company's internal controls over financial reporting in connection with the evaluation referenced in the paragraph above that occurred during the Company's quarter ended September 30, 2019 that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

**Part II. Other Information**

**Item 1. Legal Proceedings**

The Company and its subsidiaries are subject in the normal course of business to various pending and threatened legal proceedings in which claims for monetary damages are asserted. As of September 30, 2019, management, after consultation with legal counsel, does not anticipate that the aggregate ultimate liability arising out of litigation pending or threatened against the Company or its subsidiaries will be material to the Company's consolidated financial position. On at least a quarterly basis, the Company assesses its liabilities and contingencies in connection with such legal proceedings. For those matters where it is probable that the Company will incur losses and the amounts of the losses can be reasonably estimated, the Company records an expense and corresponding liability in its consolidated financial statements. To the extent the pending or threatened litigation could result in exposure in excess of that liability, the amount of such excess is not currently estimable. The range of reasonably possible losses for matters where an exposure is not currently estimable or considered probable, beyond the existing recorded liabilities, is believed to be between $0 and $1 million in the aggregate. Although the Company does not believe that the outcome of pending litigation will be material to the Company's consolidated financial position, it cannot rule out the possibility that such outcomes will be material to the consolidated results of operations for a particular reporting period in the future.

**Item 1A. Risk Factors**

There has not been any material change in the risk factors disclosure from that contained in the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2018 filed with the SEC on March 1, 2019.

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

a) Not applicable.

b) Not applicable.

c) At its December 2018 meeting, the Board approved a new stock repurchase program authorizing the repurchase, at the discretion of senior management, of up to 2,500,000 shares of the Company's common stock, in accordance with securities laws and regulations, during a twelve-month period beginning January 1, 2019. Any repurchased shares will be used for general corporate purposes, including those related to stock plan activities. The timing and extent of repurchases will depend on market conditions and other corporate considerations as determined at the Company's discretion.

The following table presents stock purchases made during the third quarter of 2019:

**Issuer Purchases of Equity Securities**

| Period | Total Number of Shares Purchased | Average Price Paid Per Share | Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs | Maximum Number of Shares That May Yet Be Purchased Under the Plans or Programs |
|---|---|---|---|---|
| July 1-31, 2019 | 1,028 | $65.55 | 0 | 2,500,000 |
| August 1-31, 2019 | 0 | 0.00 | 0 | 2,500,000 |
| September 1-30, 2019 | 0 | 0.00 | 0 | 2,500,000 |
| Total [(1)] | 1,028 | $65.55 | | |

[(1)] Included in the common shares repurchased were 1,028 shares acquired by the Company in connection with the administration of a deferred compensation plan. These shares were not repurchased as part of the publicly announced repurchase plan described above.

**Item 3. Defaults Upon Senior Securities**

Not applicable.

**Item 4. Mine Safety Disclosures**

Not applicable.

**Item 5. Other Information**

Not applicable.

**Item 6. Exhibits**

| Exhibit No. | Description |
|---|---|
| 31.1 | Certification of Mark E. Tryniski, President and Chief Executive Officer of the Registrant, pursuant to Rule 13a-15(e) or Rule 15d-15(e) under the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002. (1) |
| 31.2 | Certification of Joseph E. Sutaris, Treasurer and Chief Financial Officer of the Registrant, pursuant to Rule 13a-15(e) or Rule 15d-15(e) under the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002. (1) |
| 32.1 | Certification of Mark E. Tryniski, President and Chief Executive Officer of the Registrant, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002. (2) |
| 32.2 | Certification of Joseph E. Sutaris, Treasurer and Chief Financial Officer of the Registrant, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002. (2) |
| 101.INS | Inline XBRL Instance Document – the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document. (3) |
| 101.SCH | Inline XBRL Taxonomy Extension Schema Document (3) |
| 101.CAL | Inline XBRL Taxonomy Extension Calculation Linkbase Document (3) |
| 101.DEF | Inline XBRL Taxonomy Extension Definition Linkbase Document (3) |
| 101.LAB | Inline XBRL Taxonomy Extension Label Linkbase Document (3) |
| 101.PRE | Inline XBRL Taxonomy Extension Presentation Linkbase Document (3) |
| 104 | Cover Page Interactive Data File (formatted as inline XBRL and contained in Exhibit 101) (3) |

(1) Filed herewith.

(2) Furnished herewith.

(3) XBRL (Extensible Business Reporting Language) information is furnished and not filed or a part of a registration statement or prospectus for purposes of sections 11 or 12 of the Securities Act of 1933, is deemed not filed for purposes of section 18 of the Securities Exchange Act of 1934, and otherwise is not subject to liability under these sections.

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**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.

**Community Bank System, Inc.**

| | |
|---|---|
| Date: November 12, 2019 | /s/ Mark E. Tryniski<br>Mark E. Tryniski, President and Chief Executive Officer |
| Date: November 12, 2019 | /s/ Joseph E. Sutaris<br>Joseph E. Sutaris, Treasurer and Chief Financial Officer |



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# Section 2: EX-31.1 (EXHIBIT 31.1)

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Exhibit 31.1

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Mark E. Tryniski, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Community Bank System, Inc.;

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

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

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

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

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

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

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

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

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

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

Date: November 12, 2019

/s/ Mark E. Tryniski
Mark E. Tryniski
President and Chief Executive Officer

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# Section 3: EX-31.2 (EXHIBIT 31.2)

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Exhibit 31.2

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Joseph E. Sutaris, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Community Bank System, Inc.;

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

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

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

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

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

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

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

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

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

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

Date: November 12, 2019

/s/ Joseph E. Sutaris
Joseph E. Sutaris
Treasurer and Chief Financial Officer

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# Section 4: EX-32.1 (EXHIBIT 32.1)

Exhibit 32.1

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report of Community Bank System, Inc. (the "Company") on Form 10-Q for the quarter ended September 30, 2019 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Mark E. Tryniski, President and Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to the best of my knowledge:

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

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

This certification accompanies this Form 10-Q and shall not be deemed “filed” for purposes of Section 18 of the Securities Exchange Act of 1934, or otherwise subject to the liability of that Section.

/s/ Mark E. Tryniski
Mark E. Tryniski
President and Chief Executive Officer
November 12, 2019

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# Section 5: EX-32.2 (EXHIBIT 32.2)

Exhibit 32.2

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report of Community Bank System, Inc. (the "Company") on Form 10-Q for the quarter ended September 30, 2019 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Joseph E. Sutaris, Treasurer and Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to the best of my knowledge:

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

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

This certification accompanies this Form 10-Q and shall not be deemed “filed” for purposes of Section 18 of the Securities Exchange Act of 1934, or otherwise subject to the liability of that Section.

/s/ Joseph E. Sutaris
Joseph E. Sutaris
Treasurer and Chief Financial Officer
November 12, 2019

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